Precise Air Management
for Every Environment

FläktWoods

Fläkt Woods experience – at your service

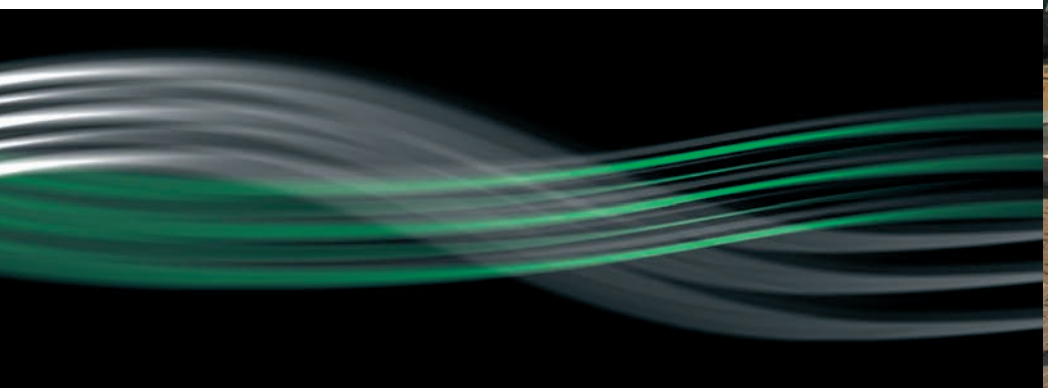
Fläkt Woods is a global leader in air management. We specialise in the design and manufacture of precision technology to deliver complete, integrated solutions. In everything we do, energy efficiency and environmental responsibility are always our major priorities. And our collective experience is unrivalled.

ENERGY
ECONOMY
ENVIRONMENT

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, Fl kt 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 Fl kt Woods experience. We re at your service.



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Precise solutions

Getting it exactly right: it's what Fläkt Woods does. Not only in engineering terms, where precision is the essential mark of quality. Crucially, it also applies to the solution for each specific task.

Each individual building has a unique combination of air management needs. In our view, merely delivering all the required functions is only part of the solution. Beyond functionality lies efficiency.

Tailored selection – with maximum energy efficiency

The closer the 'fit', the better the solution. That's because over-specification of equipment implies waste through unnecessary capital expenditure and running costs. Over a lifetime of service, that can have significant financial implications.

The best solutions can also demonstrate and deliver a high standard of energy efficiency. That means further operating cost savings as well as broader environmental benefits.

Delivering the perfect combination

At Fläkt Woods, we have the technology, the products and the knowledge to achieve that perfect combination of complete functionality with optimum efficiency, whatever the building size, type or function.

Our range is extensive and serves a very wide spectrum of applications: across commercial, industrial, public and residential sectors. We not only have 20 factories worldwide, but also maintain 6 dedicated technical centres for continuing research, development and testing *(see page15)*.

Fläkt Woods systems include:

- Fans
- Air Handling Units (AHUs)
- Chillers
- Chilled Beams
- Smoke control and car park ventilation systems
- Controls and drives

Whether as individual units, or in combination to create integrated air quality systems, there's a Fläkt Woods solution that exactly fits each situation and need.

Selection

Identifying the right equipment

Compromise, by definition, means accepting a solution that is not exactly what is required. The Fläkt Woods range ensures such situations need never arise.

This applies whether the solution is simple or complex, from a small individual unit to a major integrated system. The breadth and depth of our range is unrivalled.

Balancing all the criteria

For each individual application, the ideal solution is influenced by a combination of factors:

- **Building**
  Its type, size, configuration; and its role or purpose
- **Function**
  The operating requirements of the installed equipment in supporting the building's occupants and activities
- **Capacity**
  How these needs translate into air management performance capability
- **Efficiency**
  Delivering that performance with least possible nett usage of energy and operating cost *(see opposite)*

With so many variables to consider, finding the ideal 'fit' is always a challenge.

Ask Fläkt Woods, however, and you'll discover it's a challenge that we're always more than capable of meeting.

All air management functions – one expert source

Fläkt Woods is unique. We are the only company capable of providing entire air management solutions for a building or structure.

These include all the component functions of creating the ideal indoor climate:

- **Ventilation**
  Draught-free fresh air supply
- **Extraction**
  Quiet removal of stale or tainted air
- **Temperature**
  Cooling or heating to optimum levels
- **Humidity**
  Balanced for personal comfort and health
- **Air purity**
  Dilution of CO_2 and filtration of harmful or irritating particulates
- **Fire safety and smoke control**
  Helping minimise hazards for building occupants in an emergency, and assisting fire-fighter access

Why Fläkt Woods gets it right

We have the scope and breadth of range to ensure you'll find the optimum specification, whether for individual units or combined systems.

But that's not all. We also have unrivalled understanding of how each category of our air management technology inter-relates. It gives us maximum flexibility to create the perfect balance for any installation.

This derives from our network of Technical Centres and Research & Development teams across Europe *(see page 15)*. That's why you can be sure that all our system elements and components will work together to optimum effect.

It's also why you can have complete trust in Fläkt Woods solutions.

Achieving energy efficiency

Delivering more performance while consuming less energy. That's the primary focus of our continuing drive for even higher standards of technology. It helps reduce the running costs of air management installations, and benefits the environment.

Our continuing commitment

This Fläkt Woods approach to energy efficiency is now encapsulated in our e^3 Concept, our dedicated response to the Energy Performance of Buildings Directive (EPBD).

It represents our continuing commitment to reducing energy consumption, and thereby helping to preserve the Environment and save money.

ENERGY
ECONOMY
ENVIRONMENT

The reality of this sustained Fläkt Woods commitment can be seen in several ways:

- **High efficiency motors** Optimised drives to power impellers – whether as stand-alone fan units, or as active components of air management systems
- **Lower Specific Fan Power (SFP) ratings** Maximising useful power output, and minimising losses within unit drive systems
- **Advanced energy recovery technology** Retrieving and using a higher proportion of heating and cooling power that would otherwise go to waste. This reduces reliance on mains supplies
- **Intelligent controls** Able to recognise and respond to varying occupancy levels and changing demand in buildings. It prevents wasted energy when operating below full capacity. It can also sense the availability of 'free' energy sources and switch automatically to harnessing that power

Driving down life cycle costing (LCC)

Indeed, over a lifetime in use, it is energy that accumulates the overwhelming proportion of any air management system's total costs. Original capital investment and routine maintenance typically account for a mere 15% of costs in a 20-year service life.

However, at Fläkt Woods, we have consistently recognised the triple opportunity to downsize operational costs of air management installations via:

- Reduced consumption of purchased energy
- Increased recovery of recyclable energy
- Maximum exploitation of 'free' energy

Over time, these all add up to substantial savings.

It's a goal and potential that we have consistently applied to our technological development, particularly in relation to demand control and energy recovery.

Today, wherever you look in the Fläkt Woods air management ranges, you will find ample evidence of this modern truth: in the end, intelligent systems cost less.

Energy 85%
Investment 10%
Maintenance 5%

How energy dominates service life costs

Fans

Comprehensive choice

In built environments, the contribution of powered air movement for supply or extraction can take many forms. In broad terms, fans can help ensure the comfort and safety of building occupants but, for both general and special applications, the specific needs can vary widely. Fläkt Woods has precisely the right answers.

Range options

For emergency fire and smoke ventilation:

JM High Temperature range

- Sizes: 315 to 1600mm Ø
- Capacity: up to 65m³/s
- Pressure: up to 1900Pa
- Temperature up tp 400°C for up to 2 hours, one off operation

For ATEX environments/ industrial applications:

JM ATEX range

- Sizes: 315 to 1600mm Ø
- Capacity: up to 65m³/s
- Pressure: up to 2000Pa

Aerofoil/Compac Climafan range

- Sizes: 500 to 1000mm Ø
- Capacity: up to 13.5m³/s
- Pressure: up to 850Pa

Centripal EU range

- Sizes: 355 to 1400mm Ø
- Capacity: up to 40m³/s
- Pressure: up to 20000Pa
- Continuous operating temperature up to 350°C

Centrimaster GT range

- Sizes: 200 to 1400mm Ø
- Capacity: up to 50m³/s
- Pressure: up to 3300Pa
- High temperature (smoke extraction) capability: 400°C for 2 hours

For fume and exhaust extraction:

Bifurcated range

- Sizes: 150 to 1000mm Ø
- Capacity: up to 20m³/s
- Pressure: up to 1000Pa
- May be multi-staged for higher pressure systems

For kitchen canopy/ high pressure applications:

MaXfan range

- Sizes: 400 to 630mm Ø
- Capacity: up to 7.2m³/s
- Pressure: up to 1100Pa

JM Aerofoil range

- Sizes: 315 to 1600mm Ø
- Capacity: up to 65m³/s
- Pressure: up to 1900Pa

JM Multi-stage range

- Sizes: 315 to 1000mm Ø
- Capacity: up to 31.6m³/s
- Pressure: up to 2000Pa

Roof units range

- Sizes: 200 to 760mm Ø
- Capacity: up to 10.5m³/s
- Pressure: up to 1050Pa
- Propeller, mixed flow and centrifugal impeller options available

Size, function, loading, performance criteria and controllability can all be influential in determining the most appropriate specification.

Outstanding technology

However, what ultimately determines selection preference is demonstrable energy efficiency, as well as outstanding accuracy, quality and reliability of engineering technology. That's where Fläkt Woods excels.

Against all these criteria, our fans portfolio is the widest available today. Whatever the size and purpose of a building, we can provide the functionality, capacity and performance it requires.

For all applications

Our comprehensive choice ranges from the largest infrastructure fan through to compact, lightweight models designed for small premises or domestic situations.

Fläkt Woods fans offer solutions both for standard ambient needs and for more specialist applications. In some environments, statutory compliance is a major consideration – including the latest Building Regulations and the EPBD.

For other locations, we have fans designed to respond to emergency and high temperature operating conditions – or, as with our large ATEX-compliant range, to help prevent emergencies and minimise risk to personnel.

100% X-rayed impeller components

By the nature of the process, die casting of metals can conceal hidden porosity. This can structurally reduce core strength, and increase the possibility of fatigue or failure, especially at elevated emergency temperatures. However, with Fläkt Woods' axial fans, you have the assurance that all cast impellers have been subjected to X-ray inspection to ensure test compliance and product integrity.

Range options (below)

This is a selected summary of recommended Fläkt Woods fans for specific functional needs or performance criteria. However, individual listed fan types and ranges may also be suitable for other applications.

Also consider:

FW Centrifugal Fans range
(see Centripal EU and CentriMaster GT)

PowerBox: high pressure multi-discharge range

Axcent 2: high pressure non-stalling mixed flow fans

For standard ambient applications (general air movement, extraction, cooling and refrigeration):

JM Aerofoil range

- Sizes: 315 to 1600mm Ø
- Capacity: up to 65m³/s
- Pressure: up to 1900Pa

JM & Compac Plate Fan ranges

- Sizes: 315 to 1250mm Ø
- Capacity: up to 13.5m³/s
- Pressure: up to 850Pa
- Fixed pitch, fixed duty, extract fans

Boxed Fans range

MiniBox, SingleBox and TwinBox fans Direct driven

- Sizes: Available to suit connection spigots 100 to 500mm Ø
- Capacity: up to 1.66m³/s
- Pressure: up to 725Pa

PowerBox and Axcent 3 fans

Direct driven, duct mounted

- Sizes: Impeller diameters range from 200 to 760mm Ø
- Capacity: up to 8.40m³/s
- Pressure: up to 900Pa

Copford units Direct driven

- Connection Options: 175mm x 100mm to 700mm x 400mm
- Capacity: up to 1.88m³/s
- Pressure: up to 590Pa

Copford units Belt driven

- Connection Options: 500mm x 325mm to 1100mm x 800mm
- Capacity: up to 8.65m³/s
- Pressure: up to 780Pa

Mini AHUs

- Sizes: 3 models
- Capacity: up to 1.09m³/s
- Pressure: up to 800Pa

MPS Kitchen Extract units

- Sizes: 250mm to 400mm Ø
- Capacity: up to 2.0m³/s
- Pressure: up to 1100Pa

For energy efficiency & Part L compliance:

iFan intelligent fan range

- Sizes: 100 to 1000mm Ø
- Capacity: up to 19m³/s
- Pressure: up to 800Pa
- With EFF1 energy efficient motors
- Satisfying enhanced capital allowance scheme (ECA)

Air Handling Units

Total performance

The ideal indoor climate relies on the optimum combination of specific plant functions. So Fläkt Woods makes sure every element of the AHU is matched to building size, configuration and function.

Importantly, within each unit, we can also be certain that each element is mutually compatible with the rest. That's because, as the largest AHU manufacturer in Europe, we design and produce most of our AHU components in-house.

Intelligent functionality

Every unit is a successful blend of technology that maximises quality, performance and service life. It efficiently and intelligently combines air-cooling, cleaning, hygiene, heating and humidity control.

However, ultimate selection from our extensive AHU ranges may be influenced by more specific function or performance requirements. There may also be important, non-functional and non-technical considerations, including location available for plant installation. In some buildings, space can be restricted, access difficult and options limited.

High energy efficiency

Design of our AHUs has been particularly driven by the European Energy Performance of Buildings Directive (EPBD), with its strict standards for energy performance in both new and refurbished buildings.

As a result, we are constantly focused on minimising internal pressure drops and keeping Specific Fan Powers (SFPs) low. It ensures that as little energy as possible is used in delivering the ventilation into the building.

Range options

Modular Units

A versatile choice that offers full flexibility to achieve a perfect combination for virtually any specific air-handling environment.

EU range

Includes a basic series offering

- 24 sizes
- Indoor or outdoor variants
- Incorporating basic functions such as cooler, heat exchanger, humidifier, energy recovery, cooling/heating, fans, dampers and filters
- Integrated controls or separate control panel, and
- Airflow range: 0.1 to 35m³/s

The EU range also offers four special sub-categories, each designed to satisfy specific needs:

- Hygiene range
  For environments requiring extra cleanliness and protection against airborne contaminants. With integral high efficiency particulate air filter (HEPA)
- Econet® range
  Unique in the UK, combining energy recovery, heating and cooling in a single circuit, while keeping supply and exhaust air streams apart. Incorporating a patented run-around coil system that achieves up to 75% energy efficiency, with constant automated monitoring and adjustment of air and water flows to optimise performance efficiency
- Twin Wheel units
  Combining hygroscopic and non-hygroscopic thermal wheels. For environments requiring dehumidification
- Express units
  Offering standard functions for fast-track delivery

Compact Units

Designed for building situations where available installation space is restricted.

EQ range

- Incorporating
- 17 sizes
- Indoor or outdoor installation
- Can be single or double decked units
- Integrated controls or separate control panel
- Airflow range: 0.1 to 8m³/s

EQ range has all options of energy recovery available.

Also available:
EUMM/EMAA EU range variants for marine applications

Maximising potential energy recovery

There is more to efficiency than merely reducing wastage.

Our range includes advanced technology that can recover and harness power from extract air or from external air supplies. This considerably reduces consumption of mains-supplied energy.

All Fläkt Woods AHUs are environmentally accredited to BS EN ISO 14001, and all performances are certified by Eurovent.

Energy recovery options

Fläkt Woods heat exchanger technology includes

Plate

- Recuterm®
  Simple operation – fitted as standard in EU and EQ units

Thermal wheels

- Regoterm® and Turboterm®
  Compact dimensions with extra temperature efficiency potential – available as standard in EU and EQ units
- Twin Wheel
  For projects requiring dehumidification and reheat of supply air. Temperature efficiency potential very high – available as component in EU units

Liquid coupled (run-around) coils

- Ecoterm®
  For projects requiring zero risk of cross contamination of supply and exhaust air
- Econet®
  Advanced technology with enhanced performance *(see opposite)*

SEMCO TE3 wheel

- Total enthalpy wheel with 3 Angstrom molecular sieve for zero contaminant supply air
- Efficiencies up to 90% for both sensible and latent energy recovery

Small AHUs

For ceiling installation in small premises such as shops, kiosks and service stations.

VEKA range

Offering

- 2 sizes
- Separate control panel
- Airflow range: 0.1 to 1.2m³/s

Mini-AHU's

Offering

- Volumes up to 2m³/s
- Voidpack units with energy recovery

Also available:

RoomMaster ABR For installation in occupied space

TopMaster Incorporating thermal wheel, for installation in contained spaces

Cooling components

EU or EQ Cooler – Stand-alone or integrated units to contribute cooler air into certain EU and EQ installed systems. CoolMaster indirect evaporative cooling system, which can help reduce chiller load by up to 60%.

Selecting the right system solution

The Fläkt Woods Acon selection tool is available on-line to respond to specific requirements. It will not only quickly identify the ideal solution, but also calculate its Life Cycle Costing.

It also includes our ControlMaster® program. This will automatically select exactly the right control equipment for the selected unit.

To access these tools, log on to www.flaktwoods.co.uk, then select Downloads.

Chillers

Delivering the right temperature

Indoor climate comfort means consistently maintaining an air temperature that is neither too warm nor too cool. Humidity must also be right, and there should be no distracting draughts.

Fläkt Woods has the technology to meet the multi-faceted challenge with the optimum air management solution, of which chillers are an important element.

Efficient, controllable performance

There's a chiller at the heart of every installed system. Our range has the scope and choice to satisfy the three priority goals of an ideal HVAC installation:

- Performance precision
- Controllability
- Energy efficiency

They include air-cooled models with the ozone-friendly **R-410A** refrigerant, multi scroll compressor that is now increasingly preferred. Optimum efficiency is assured during both peak and part load operation. Our chillers can help reduce overall energy consumption by up to 35%.

We can also offer water-cooled chillers for higher output installations.

Harnessing free cooling

Fläkt Woods chillers can be installed with an integral dry 'free cooling' circuit. This uses cold outside air to provide cooling water without the need to run compressors. Consequential typical savings in mechanical wear and tear and running costs can be substantial.

Fläkt Woods chillers are manufactured to BS EN ISO 9001 & 14001, and certified by Eurovent and CE.mark.

Range options

Air-cooled Chillers

Designed for fully-integrated operation with high efficiency whether operating at full or part load. Selected options include:

ClimaFläkt air-cooled range

Scroll Compressor Units

with ozone-friendly **R-410A** refrigerant

KCAA

- 14 sizes: rotary or single scroll
- Compact: ideal for residential applications
- Cooling capacity 4.32 to 37.2 kW

KCAG

- 8 sizes: twin scroll
- High efficiency, using 2 compressors of differing capacity
- Self-adapting to integrated system
- Cooling capacity 24.3 to 72.2 kW

KCCC

- 31 sizes: multi-scroll
- Very high efficiency
- Self-adapting to integrated system
- Cooling capacity 86 to 965 kW

Twin-Screw Compressor Units

with **R-134A** refrigerant

KCCE/F

- 14 sizes: two- or three-screw
- High capacity screw compressors
- Fitted with economiser circuit for extra operating efficiency
- Cooling capacity 364 to 1525 kW (or 1100 kW with twin-screws)

Also available:

Water-cooled Chillers

KCGE and KCHG twin-screw with **R-134A** refrigerant

- Cooling capacity 500 to 1500 kW
- Including split-type options, with remote dry coolers/condenser for larger installations with heavy demand

Chilled Beams

Cost-effective flexible control

Every building environment has individual needs. That's because its configuration, function and occupancy usually represent a unique combination.
So, to achieve the optimum indoor climate, design flexibility and operational control are essential.

Fläkt Woods Chilled Beams can provide adaptable, cost-effective solutions. Where appropriate, they can also be contributory elements in a tailored, fully-integrated air management system.

Active or passive: easy to install

Our IQ range of active Chilled Beams induce air to pass across finned coil heat exchangers before mixing with primary air supply. The blended air is then evenly discharged through lateral slots. They may be used for heating as well as cooling.

If cost-efficient cooling is your sole priority, you can opt for our QP range of passive Chilled Beams. These use natural convection to achieve the required heat transfer.

All Fläkt Woods Chilled Beams are designed to be remarkably easy to install, whether flush-mounted or exposed fitting. Other services, including lighting and security features, can be integrated on request.

Unique features for extra flexibility

Our active Chilled Beams are available with special control features:

- Comfort Control
  Adjustable variable geometry slots to regulate air diffusion and cooling capacity. Air supply can be uni- or bi-directional. Available on all IQ models
- Flow Pattern Control
  Adjustable air vanes to control air direction and patterns. Available on most IQ models

These features are especially useful for precision airflow from the beams to suit office partitioning and, for the future flexibility.

Range options

Chilled Beam Units

Designed for flush-mounting in suspended ceilings, or for exposed fitting.

Flexicool range

Active (Induction) Units

Flush-mounted:

IQID

- For 600mm ceiling modules
- High induction ratio for increased cooling/heating capacity

IQID

- For 300mm ceiling modules
- Combined cooling/heating/ventilation

IQCA

- Chilled Beam cassette
- Adaptable for 600mm and 1200mm ceiling modules
- High induction ratio for increased cooling/heating capacity
- 1 to 4-way adjustable air discharge patterns

Exposed fitting:

IQFD

- Aesthetic design casing profile
- High induction ratio for increased cooling/heating capacity

IQTA

- Aesthetic design casing profile
- Particularly suitable for hotel guestrooms

Passive (Convective) Units

Flush-mounted or exposed fitting:

QPSA (narrow) or **QPBA** (broad)

- No moving parts
- Options include bespoke widths, and un-cased versions for hidden mounting in perforated ceilings

Also available to order:

Multi-service Chilled Beams

Active or passive Chilled Beams incorporating (as required) integral lighting, infra-red sensors, smoke detectors speakers, and sprinkler systems in addition to cooling, heating and ventilation.

Car Park Systems

Tailored total ventilation

Each car park is unique, but they all share a common need: controlled ventilation to handle both routine pollution detection and life-threatening emergency smoke extract situations. The solution lies in our specialist expertise and application of in-house CFD software.

The Fläkt Woods approach differs from the traditional, because it does not rely solely on air change rates, continuous running of the system or use of extensive ductwork. Such outmoded methods take up valuable headroom and also incur substantial installation and operating costs.

Instead, we tailor individual systems using a series of strategically sited, high level Jet Thrust and Induction Thrust fans. In pollution mode these are triggered by detection sensors and the fans induce contaminated air and direct it to main extract points for discharge.

Installation of ductwork and grilles is kept to a minimum, so main extract fans can be smaller, will use less power and lower noise levels can be achieved.

In the event of a fire, our systems switch automatically (via a remote signal) into emergency mode, and smoke is efficiently channelled and removed by the shortest route. This has important benefits for both personnel safety and damage limitation *(see opposite page).*

Computational Fluid Dynamic (CFD) system design

Our skilled engineers use CFD to create a 3D model of airflow for each specific car park configuration, whether fully or partly enclosed.

This helps remove guesswork from the design by clarifying exactly the right number and type of fan units, and their specific locations, to deliver the required system performance capability.

Complete turnkey solution

Fläkt Woods offers a complete turnkey service with expert project management.

The assigned team will design, supply, test and commission the entire solution. This would be to a specific project brief and would be in line with the fire strategy for the building, whether a simple pollution control system, smoke clearance – or a fully integrated smoke control system to cover emergency situations.

System options

Induction Thrust fans

- 2 sizes: ITF50 and ITF75
- Thrust levels: 50N or 75N
- Under-fan air intake with wide horizontal high thrust discharge
- Slim profile for increased head clearance
- High energy efficiency
- Easy 'plug and play' installation: lower installed costs

As no two car parks are identical, the ideal solution must be precisely tailored to the type, size and geometry of the specific structure concerned.

Each solution typically comprises three main elements:

- Main extract fans
- Fans to distribute and control air flow: jet thrust or induction thrust units or in combination as determined at design stage
- Control systems to optimise air flow

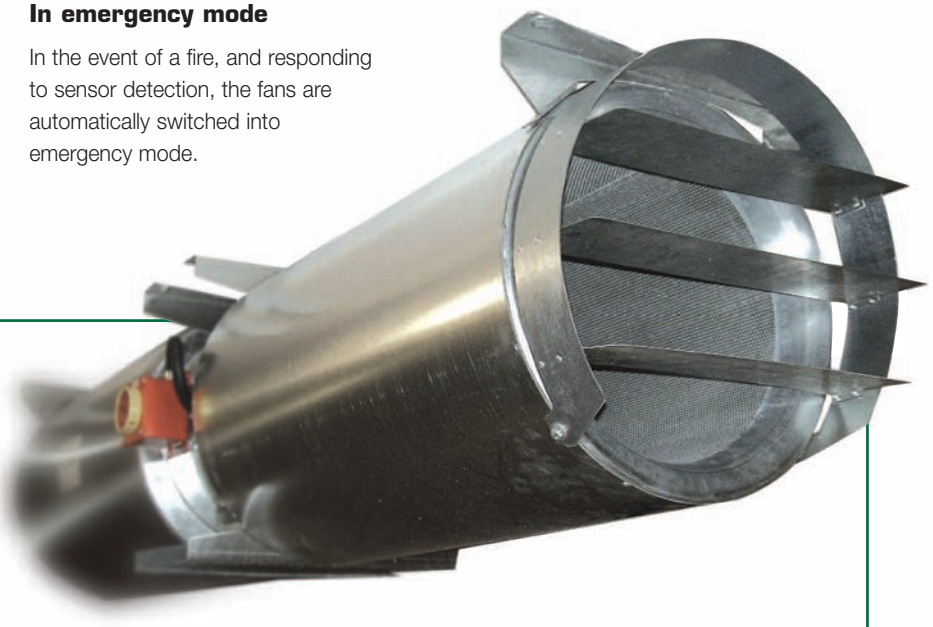
In Pollution mode

Each designed installation is controlled by pollution detection sensors, Carbon Monoxide (CO), Nitrogen Oxides (NOx) or Liquefied Petroleum Gas (LPG) which will activate selected fans.

In emergency mode

In the event of a fire, and responding to sensor detection, the fans are automatically switched into emergency mode.

This deploys fans to limit the propagation of smoke inside the car park and direct it to the nearest extract point. This has two potentially life-saving benefits: escape routes are kept clear and there is easier access for fire-fighters.

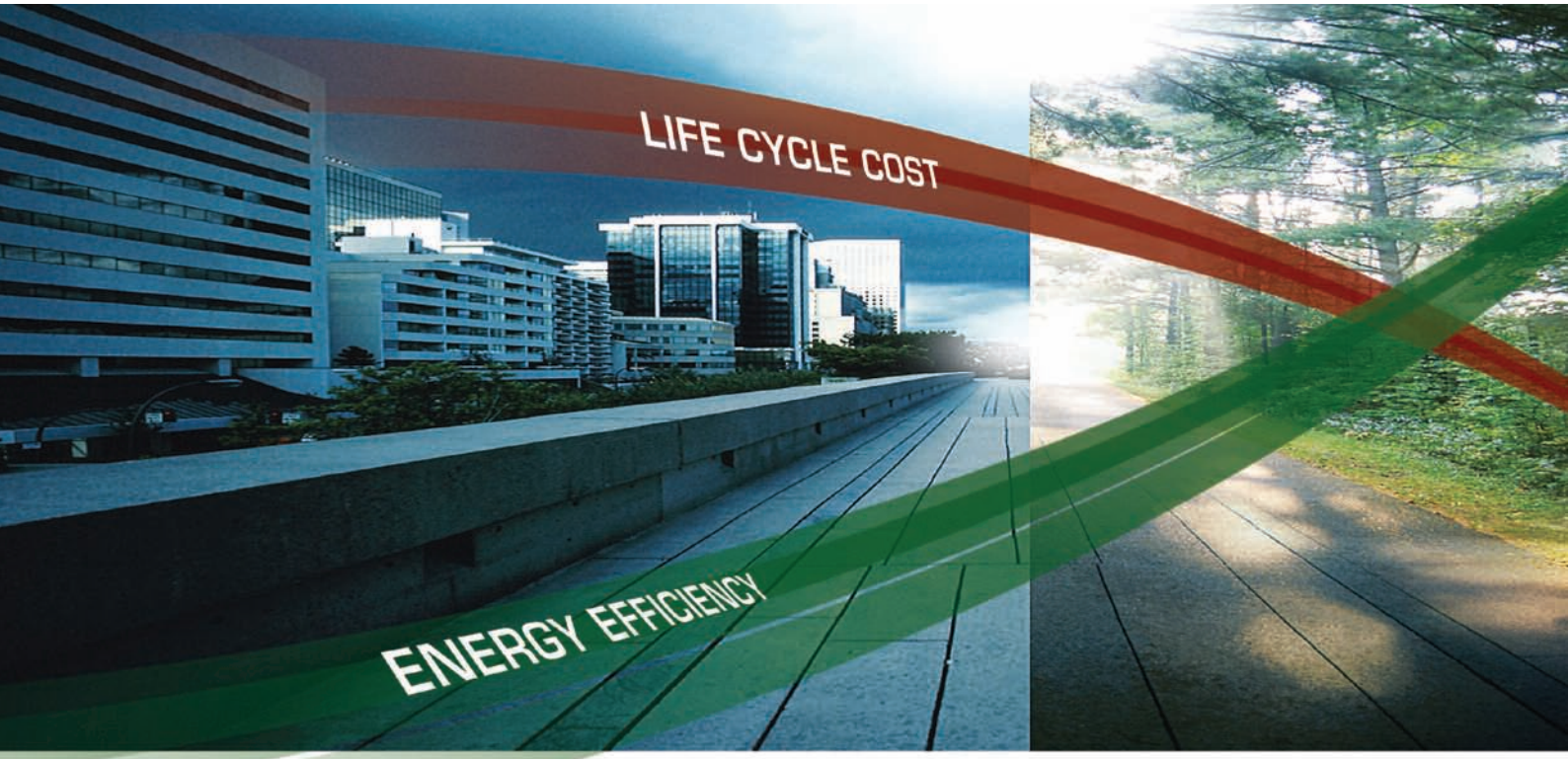


Jet Thrust fans

- Sizes: 315-400mm
- In-line intake/discharge
- Fully reversible thrust up to 56N
- Emergency mode full design speed triggered by sensors

Specification

Finding the right solution



The best solutions need full information and comprehensive product options. By eliminating guesswork and broadening choice, capital investment can be reduced, running costs are cut and performance optimised.

The Fläkt Woods product range, together with our extensive experience and expertise, enables precise selection.

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

System selection

ACON web-based program

It's always up-to-date and available to help. It will take note of your specific project requirements. Then it will guide you through the selection process and quickly identify the ideal system solution.

The Acon program is fully-primed with all necessary technical detail, data, dimensions, e-CAD drawings and even delivery time. It can also give you predicted Life Cycle Costing for the recommended system.

So your selection decision can be fast and fully-informed – and one you can trust to do the job.

To access the Acon selection tool, log on to **www.flaktwoods.com**, select UK, then Downloads.

Fan selection

FAN SELECTOR on-line software

Also available online is the Fläkt Woods Fan Selector tool that can help you quickly identify the right fan solution for your specific project requirements.

To access the Fläkt Woods Fan Selector software, log on to **http://fanselector.flaktwoods.com**

The Fan Selector is also available as an Enhanced CD/Desktop version for stand-alone off-line working on your own computer, especially if you need more functionality and performance while mobile. This is designed to receive "WebUpdate" delivery of our latest product solutions.

For more information, email: **fan.selector@flaktwoods.com**

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.

From providing expert advice, information and guidance, to ensuring 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.

Fläkt Woods systems in more detail

For more specific information, request introductory literature for all our air management systems:

- Air Handling Units
- Chillers
- Chilled Beams

and for our comprehensive range of

- Fans

Upgrades and system monitoring

If you're planning 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

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.

UK/CO-01/0109

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