

Precise Air Management
Product Range > Chilled Beams



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

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

Chilled Beams

The Flexicool® range: active, passive and multi-service unit options. Using latest design technologies and offering unique features to provide hygienic, cost-effective, flexible solutions contributing to indoor air quality.

Total air quality solutions – precisely

Indoor air quality has never been more important. It's the object of increasingly stringent regulation and subject to today's sharper focus on energy efficiency. But getting it exactly right can also bring you valuable long-term benefits.

For example, it raises productivity levels in enclosed workplaces, improves comfort levels in hotels – and sustains optimum conditions for patients and staff in healthcare environments.

Find the right system to achieve these advantages – and you can also expect reductions in both energy consumption and operating costs. Fläkt Woods has it all.

The perfect combination

The ideal indoor climate is dependent on the correct combination of several factors.

- **Ventilation**
The supply of fresh air – without uncomfortable draughts
- **Temperature**
Via cooling, or heating, to the optimum levels
- **Humidity**
A proper balance for personal comfort and health
- **Air purity**
The dilution of CO₂ and filtration of harmful or irritating particulates
- **Noise**
No distractions from functioning systems

At Fläkt Woods, we have the systems and expertise to give you that combination.

From one expert source

Fläkt Woods is unique. We are the ONLY systems company capable of providing the entire indoor climate solution for each individual project.

That means we can deliver all the air management functions, capacity and performance that a building requires – both within specific areas and for the entire structure.

Within each designed installation, all Fläkt Woods system elements are fully compatible with each other for maximum integrated operational efficiency.

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

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On-line selection tools

To help identify the right solution, Fläkt Woods offers strong support via our Excelair software. This computer-aided, web-based selection tool can quickly point to the answer to your specific project requirements.

EUROVENT and ISO certification

Once selected, you have the additional reassurance of independent certification. Fläkt Woods Chilled Beams are certified by EUROVENT, and to ISO 14001 and ISO 9001 standards.



Active Chilled Beams

Controllable induction and ventilation

Design flexibility and operational control are key. Because combined implications of space configuration, function and occupancy mean each building has individual – probably unique – needs.

So every built environment will have specific indoor air climate objectives. Fläkt Woods induction beams are easily adaptable to these requirements, for each separate room or working space, large or small.

Flexicool® IQ active Chilled Beams induce room air to pass across finned coil heat exchangers within each unit. This air mixes with primary supply air before being evenly discharged into the room via lateral slots. Units are available for flush-mounting within suspended ceilings, or fully exposed fitting, and may be used for both heating and cooling.

Unique features – for extra operational flexibility

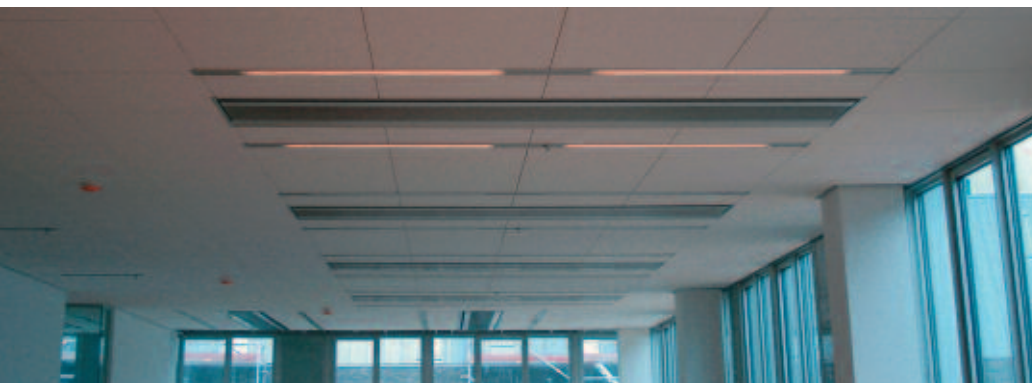
Fläkt Woods IQ range of induction beams can incorporate two special features. Together these provide a unique control facility to achieve the highest possible efficiency of operation in service.

Comfort Control

- Adjustable to regulate air diffusion and cooling capacity of the beam
- Using variable geometry slots to provide uni- or bi-directional air supply

Optional:

- Twin slots for higher air volumes



Mounting and controls

All Fläkt Woods IQ active Chilled Beams are designed for quick and easy installation. The units are supplied with special brackets to enable lift-up and snap-on mounting.

Controls include

- Room thermostats
- Valves and actuators
- Condensation and occupancy sensors for sequential heating and cooling

Fast installation – easy adjustment

Both fitting and operational set-up adjustment are remarkably easy. Not just at installation, but also for any future changes in room use and layout.

If that happens, replacement won't be necessary. With our unique Comfort Control and Flow Pattern Control features (*see panel*), the beams' operational functions can be altered, simply and in situ.

Highly efficient, reliable technology

As with all Fläkt Woods air management technology, effective performance, energy efficiency and build quality are our priorities.

In their own right, or as part of an integrated air management solution, our active Chilled Beams are designed to manage high cooling/heating effects. Their quiet operation, reduced maintenance and correspondingly low running costs are now making them an increasingly strong alternative to traditional fan coil technology.

Flow Pattern Control (FPC)

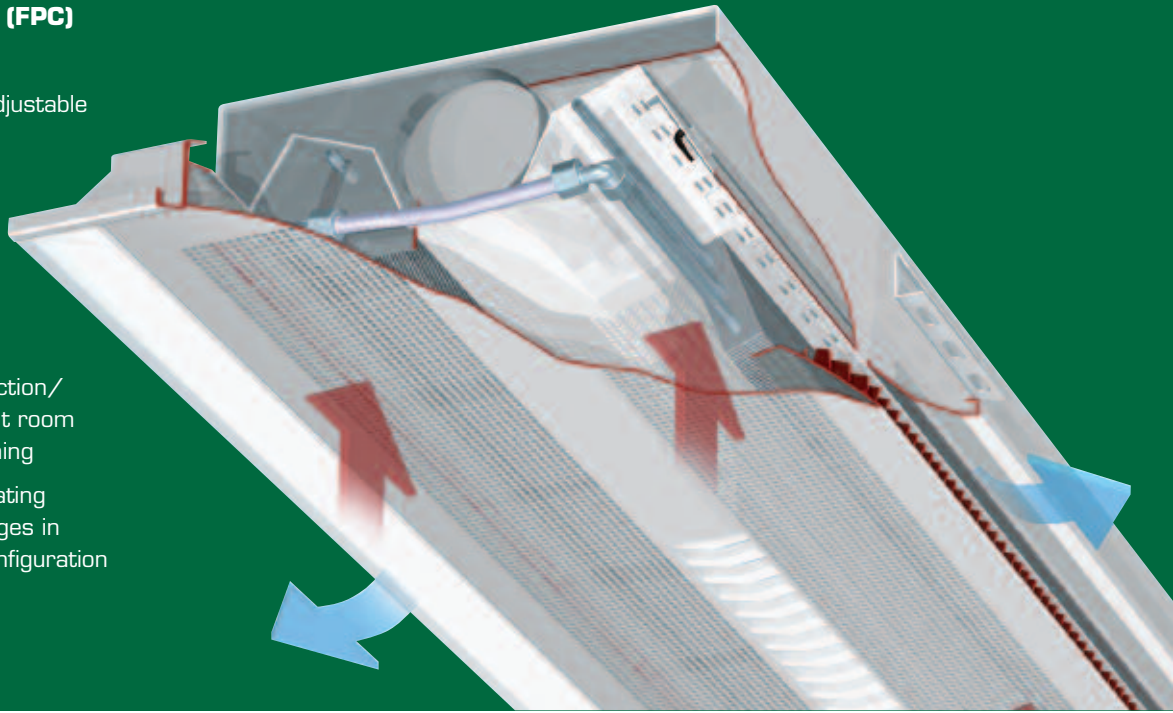
Available on most models

- Air vanes in outlets: adjustable up to 45°
- In 300mm sections on either side of unit

In combination

Selectable for:

- Variable air discharge, controlling airflow direction/angles/patterns to suit room configuration/partitioning
- Adjustable cooling/heating capacity if future changes in room conditions or configuration



Active Chilled Beams

Flexicool® IQ range

IQ Chilled Beams include a choice of flush mounted and fully exposed units, with optional extra features for certain models, available on request. The following options apply to all IQ Beams:

- Patented Comfort Control feature
- 4-pipe versions for heating

Flush mounted options

For integration into suspended ceilings

IQID

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

Additional options

- Flow Pattern Control feature
- Specification flexibility for full multi-functional operation and control
- Integral downlighting
- Can incorporate sprinkler system

IQSA

- For 300mm ceiling modules
- Combined cooling, heating and ventilation

NEW IQCA

- Adaptable cassette unit for 600x600mm or 1200x600mm modules
- High induction ratio for increased cooling and heating capacity
- 1 to 4-way adjustable air discharge patterns
- Coanda Safety Control (CSC)

Additional option

- Flow Pattern Control feature

Exposed options

For open mounting on ceilings

NEW IQFD and NEW IQFE

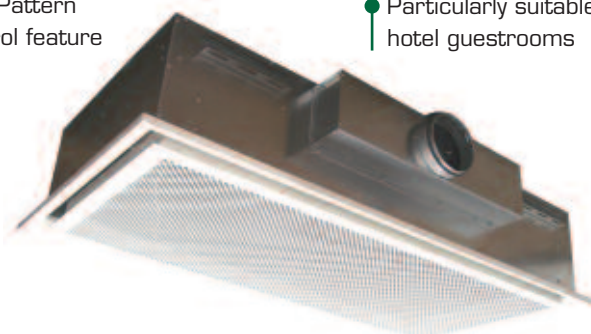
- Aesthetically designed casing profiles
- High induction ratio for increased cooling and heating capacity

Additional options

- Flow Pattern Control feature
- Integral direct and indirect lighting

IQTA

- Aesthetically designed casing profiles
- Particularly suitable for hotel guestrooms



Passive Chilled Beams

Convective cooling

Sometimes simplicity is sufficient. When the focus is on keeping working temperatures down at a comfortable level, there are some efficiently easy answers.

Flexicool® QP passive Chilled Beams use heat transfer via natural convection to provide cost-efficient cooling. Warm room air rises and comes into contact with the cold surface of the heat exchanger. The air is cooled and flows down through the beam and into the room. Ventilation is typically provided through grilles at high level or within the floor void.

Mounting and controls

All Fläkt Woods QP passive Chilled Beams are designed for quick and easy installation. The units are supplied with special brackets to enable lift-up and snap-on mounting.

Controls include

- Room thermostats
- Valves and actuators
- Condensation and occupancy sensors for sequential heating and cooling

Passive Chilled Beams

Flexicool® QP range

QP Chilled Beams have no moving parts and so require minimal maintenance. They are available for flush-mounting within suspended ceilings, or fully exposed fitting.

Flush mounted or Exposed fitting

QPSA and QPBA

Available in two standard widths

- Narrow configuration: 290mm (QPSA)
- Broad configuration: 430mm (QPBA)

Options (available on request):

- Bespoke widths/profiles
- Uncased versions for mounting above perforated ceiling



Multi service Chilled Beams

Active or passive – with extras

When additional functions are needed, there can be integrated solutions.

Fläkt Woods can create multi-service Chilled Beams (MSCB) to order. These can be either active or passive beam designs, incorporating combinations of the following, exactly as required:

- Cooling, heating and ventilation
- Integral uplighting and downlighting
- Passive InfraRed (PIR) sensors
- Smoke detectors
- Speaker and sprinkler systems

Ask for further information (see page 7 for contact 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

Chilled Beams 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
- Fans

Selection and specification advice

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

01206 222549 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 222549

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.

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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.

The logo for Fläkt Woods, featuring the company name in a bold, green, sans-serif font. A stylized green swoosh underline is positioned beneath the 't' in 'Woods'.