

 AIR COMFORT

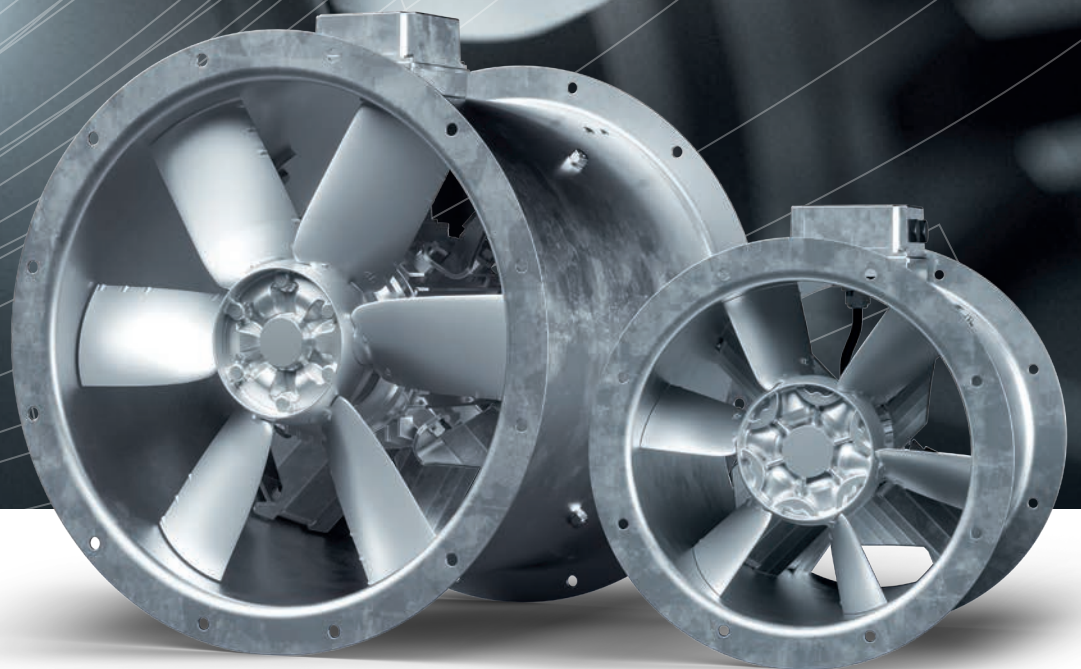
 FIRE SAFETY

AIR MOVEMENT

JMv

**AN AERODYNAMIC
REVOLUTION**

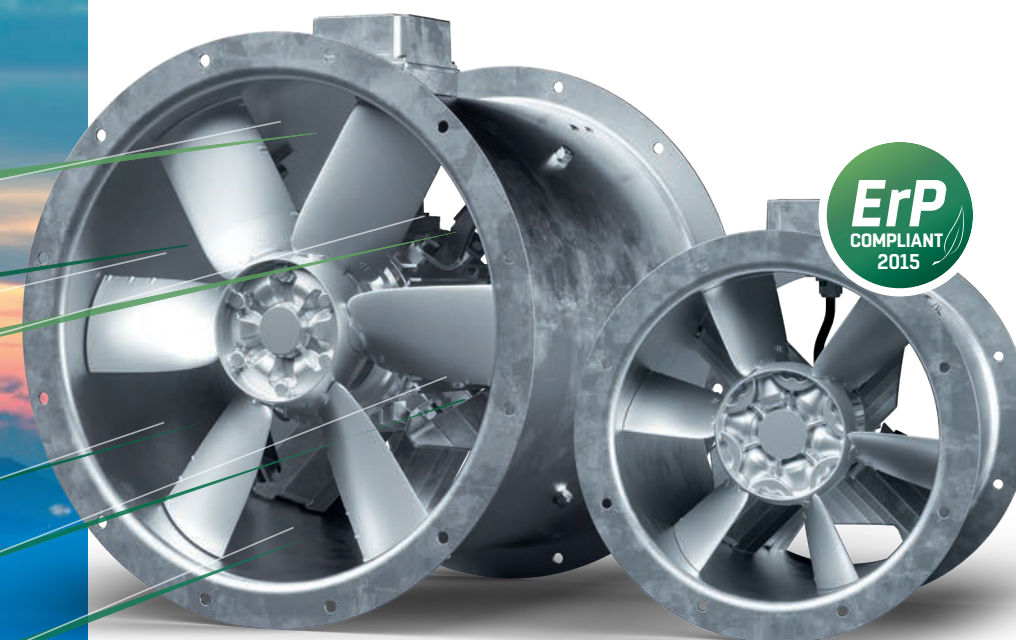
» GAIN THE AERODYNAMIC ADVANTAGE WITH THE NEW JMv
FEATURING VORTEX CREATION CONTROL FOR ULTIMATE EFFICIENCY



**Save Energy,
Economy and
Environment
with Fläkt Woods**



Energy optimisation is an important aspect of creating a healthy and cost-effective indoor climate, and an area in which Fläkt Woods have acclaimed expertise. We use the e³ symbol to highlight products and solutions that are particularly effective. They serve a dual purpose, that of protecting the environment whilst being economical to run. >> flaktwoods.com/energy



JMv by FLÄKT WOODS **AERODYNAMIC EFFICIENCY – TAKEN TO THE NEXT LEVEL**

For our new JMv range we have taken inspiration from the field of aeronautical engineering, where aerodynamic efficiency is a key factor when striving to lower fuel costs and reduce emissions. The result is our most aerodynamically advanced fan design yet which uses Fläkt Woods' Vortex Creation Control (VCC) technology. Using our Engineering excellence and advanced CFD design tools, we have optimised blade, hub and static component design to deliver outstanding aerodynamic performance which achieves energy and running cost reductions of up to 24% (average saving across the range is 17%).

The low life-cycle costs of the JMv range is also supported by the traditional strengths of our JM-series, which means class leading levels of reliability and quality, as well as quick and cost effective installation. And, as you'd expect, the entire range is future-proof and exceeds ErP 2015 demands.

HOW CAN SUBTLE IMPELLER DESIGN CHANGES AND VCC TECHNOLOGY **REDUCE YOUR ANNUAL ENERGY BILL BY UP TO 24%?**

Often, many small and subtle changes, if applied with insight and innovation, can add up to make a significant impact – and this is certainly the case with the new JMv. Not a single part has escaped scrutiny in order to create a design that optimises overall efficiency. The brand new hub and blade design is at the core of Fläkt Woods' Vortex Creation Control technology which delivers the much improved aerodynamic performance. The airflow through the fan is managed very precisely to boost efficiency – starting with the aerodynamic hub design, continuing to the vortex generators on the trailing edge of impeller blades and finishing with a 2 stage guide vane assembly to further control and reduce turbulence, leading to the best possible conversion of turbulent energy into usable aerodynamic performance. To ensure that efficiency is maximised we manufacture all components to tight tolerances and carefully assemble them to make sure that every single fan can deliver its optimum efficiency – so that each fan has quality built-in, and premium performance is assured.

INNOVATION AND VCC TECHNOLOGY GIVES YOU THE AERODYNAMIC ADVANTAGE

- CFD optimised blade design for more performance at lower pitch angles
- Vortex generators on the trailing edge of impeller blades intelligently manages airflow and turbulence for optimum aerodynamic performance
- Total fan design optimised for increased efficiency
- Advanced technical components incorporating registered design features
- 2 stage guide vanes boost efficiency further and also provide support for the motor which means less weight and complexity
- Average running cost savings are 17% (24% max)
- Look for the VCC logo on the blade to make sure that your new fan delivers optimum efficiency!

<CCTM
VORTEX
CREATION
CONTROL
by **FLÄKT WOODS**

Thanks to the innovative VCC technology, JMv is an extremely efficient fan, which often exceeds ErP 2015 efficiency targets without the need for an expensive high efficiency motor. Of course, if customers need to enhance energy savings further, then we can offer fans fitted with IE3 rated motors or matched inverters which can be used to optimize running efficiency and power usage.

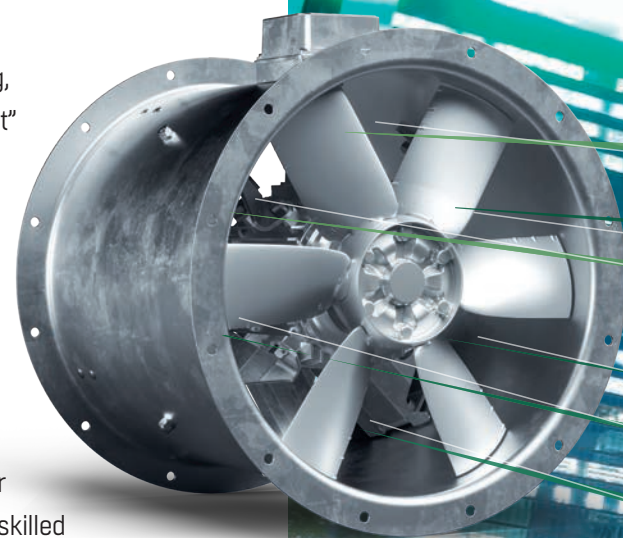


MAKING BUILDINGS GREENER AND MORE EFFICIENT BOTH NOW AND IN THE FUTURE

As the world tries to combat and address global warming, the focus on energy consumption and its "carbon footprint" increases. If we can use less, that footprint will be smaller. According to ErP directive 2009/125/EC energy consumption in buildings must be reduced, by increasing combined fan and motor efficiency, by 20%, by 2020. Because HVAC system energy costs typically make up 85% of a building Life Cycle Costs, property owners and investors are therefore increasingly demanding higher energy efficient solutions.

Fläkt Woods can help you achieve these targets. With our strong heritage, vast product range, global coverage and skilled people, we are in a unique position to deliver energy efficient products and solutions to all applications and industries. Our solution is a broad approach that leaves no stone unturned to achieve optimum results. It is a chain that starts with high-performing components utilising the latest technologies, continues with carefully designed products that focus on energy efficiency and finishes with complete solutions that use smart controls to manage every single part of the system to optimise the possible energy savings. All this is achieved whilst maintaining high levels of indoor comfort that we need and expect within a modern building design.

>> Read more at flaktwoods.com/energy



Controlling cost and comfort

Mechanical ventilation should only be provided when it is actually required – delivered when demanded. That's why, at Fläkt Woods, we are focussed on developing controls that optimises performance with minimum running costs while maintaining, or increasing, functionality. Our extensive experience and systematic approach ensure that we can always provide a good energy efficient solution and comfortable indoor climate. For the JMv fan we can supply a range of options, ranging from simple speed controllers to inverter drives that have full BMS connectivity capability.

>> Read more at flaktwoods.com

A COMPLETE RANGE WITH EFFICIENCY AND FUNCTIONALITY YOU CAN RELY ON

Our JM family has an enviable reputation for great functionality, energy efficiency and reliability in a wide variety of applications. The new JMv continues this tradition and builds on these attributes by using our innovative Vortex Creation Control technology that takes aerodynamic control and efficiency to new levels. Thanks to its long case design it is quick and simple to install and equally suitable for new installations and retrofit applications. The range includes both Standard and High Temperature versions in seven sizes to make sure we can supply the correct fan for you – whatever your application.



JMv AEROFOIL STANDARD

The Standard JMv variant is designed for normal ventilation applications where everyday running costs and performance are important. It combines reliability, quality and energy efficiency into one optimised package.

TECHNICAL FACTS:

Casing	Long
Size	7 available, 315–630 mm
Hub size	140/160/200
Impeller	6 blades
Temperature range	-40°C to +50°C
Electrical supply	1 ph/50Hz or 60Hz 3 ph/50Hz or 60Hz



JMv AEROFOIL HT

The HT JMv variant is not only designed for normal ventilation applications, but also for “one-off” emergency smoke extraction. Even though it is specifically designed to handle smoke extract temperatures of up to 400°C for 2 hours, it still offers an energy efficiency solution.

TECHNICAL FACTS:

Casing	Long
Size	7 available, 315–630 mm
Hub size	140/160/200
Impeller	6 blades
Temperature range	200/300/400°C for 2 hours
Electrical supply	3 ph/50Hz (400°C max) 3 ph/60Hz (400°C max)*

*Maximum speed is dependent on fan diameter and speed variant. Please enquire for specific guidance.



**AERODYNAMIC
EFFICIENCY***
+9%



**RUNNING
COST****
-17%



**MAXIMUM
ENERGY USE*****
-2496 kWh



**MAXIMUM CO₂
EMISSION******
-1.305 tonnes

JMv – a new benchmark for energy saving and running cost reduction

At Fläkt Woods, we are constantly applying our technological skills and experience to the continuing drive for greater efficiency and reduced energy waste in order to minimise the environmental impact of our products. It is also driven by the need to comply to new or updated legislation, such as the ErP directive. Energy efficiency is a core principle of our fan design, but environmental concerns are not the only factor. The problem of escalating energy costs is a significant additional incentive. So our development focus is always firmly on two principal goals: Delivering the same (or better) functions, while reducing the amount of power a fan needs and enabling it to operate only when needed.

The development of our new JMv is a perfect example of this principal – the innovative Vortex Creation Control technology takes advantage of optimised aerodynamic performance to give impressive running cost and energy consumption reductions.

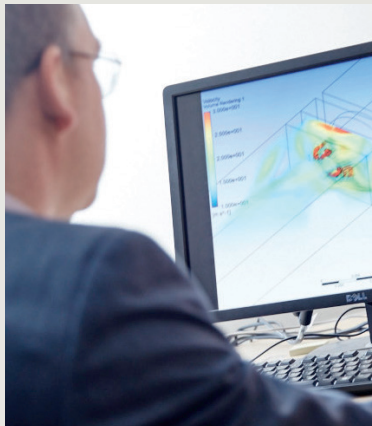
Aerodynamic efficiency: 9% average improvement*

Running cost: 17% average reduction**

Energy use: 2496 kWh maximum energy reduction***

CO₂ emission reduction: 1.305 Tonnes****

*Average across the range **500 mm Ø fan, based on 2000 hours running time per year. Compared to JM. ***Relates to 560mm diameter fan (Dual Mode fan: suitable for HT 300°C/2hr and normal ventilation) ****Conversion from kWh to kg of Carbon based on a factor of 0.523 (which relates to UK power generation)



Advanced research and testing facilities

Fläkt Woods has some of the most advanced ventilation laboratories in the world, where we are able to perform simulations and testing in full-scale environments to ensure that the benchmark performance as well as international norms and standards are being met. During development of the JMv, extensive use of CFD simulations meant that we were able to achieve a very high level of aerodynamic efficiency.



Fan Selector – for quick and easy selection

The Fläkt Woods Group Fan Selector is probably the most comprehensive tool of its kind in the world. The software has been developed based on many years experience of producing support tools for the fan industry. The Fan Selector tool is available to all customers and prospects. To get access you need only a browser with an Internet connection, so that you can navigate to our resource web page which allows you to download our software for local installation. Fan Selector can be configured with your own preferences (language, volume flow rate units, LCC calculation set up, currency, etc). The tool currently includes a large number of the Fläkt Woods axial fans, centrifugal fans, box and duct fans, and our Energy Recovery Units.

fanselector.flaktwoods.com

JMv – an aerodynamic revolution with clear and simple advantages



END USER/BUILDING OWNER

- Proven energy savings - running costs reduced by up to 24%
- ErP 2015 compliant
- Low life cycle costs – reduced energy consumption and low maintenance costs
- Reduced CO₂ foot print



CONSULTANT

- ErP 2015 compliant
- Proven energy savings - running costs reduced by up to 24%
- BREEAM/Green design credentials
- Advanced Fan Selector Tool - makes selecting the most energy efficient solution easy



CONTRACTOR

- Wide range and great availability
- Easy installation
- Compliant with consultant specifications
- ErP 2015 compliant

OVER 100 YEARS OF AIR MOVEMENT EXPERIENCE **AT YOUR SERVICE**

At Fläkt Woods we are committed to the continuous development of our complete range of Air Technology Products, Systems and Components. We provide superior Air Movement solutions for occupants, advanced Fire Safety solutions to protect people and equipment – in combination with substantial energy and cost savings. Reducing the environmental foot print through innovative products and energy efficient solutions has been at the core of our business since the start and that mindset is transferred through our unrivalled industry expertise into every project.

BY YOUR SIDE, FROM PRODUCT SELECTION TO INSTALLATION AND BEYOND

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.



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VORTEX
CREATION
CONTROL
by **FLÄKT WOODS**



WE BRING BETTER AIR™ TO LIFE

With over a century of innovation and expertise to share with our customers, Fläkt Woods is a global leader in Air Technology products and solutions. We specialize in the design and manufacturing of a wide range of products and solutions for Air Movement, Air Treatment, Air Distribution, Air Management and Air Diffusion with focus on two major benefits – **Air Comfort** and **Fire Safety**. With market presence in 65 countries we are in a unique position to be a local supplier and an international partner in our customer's projects.

Our product brands such as SEMCO®, eQ®, eQ Prime®, JM Aerofoil®, JMv Aerofoil®, VCC technology®, Econet®, Veloduct®, Optivent®, Optimix®, Econovent® and Cleanvent® are well-known and trusted by customers all over the world to deliver high quality and energy efficient solutions.

WWW.FLAKTWOODS.COM

JMv | 9705GB | 20150101

» To learn more about our offering and get in contact with your nearest sales representative please visit www.flaktwoods.com

AIR MOVEMENT - FANS CENTRE OF EXCELLENCE

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