

ACIC/JMIC AXIAL FAN

Industrial Cooling Fan Range





ACIC & JMIC

**A standardised range
with future-proof
energy efficiency and
reliability in extreme
environments**



With over 100 years of experience in the air movement industry, Woods Air Movement is a trusted and reliable supplier of high-quality "Made in Britain" fans for all demanding applications – from comfort to safety critical.

With the launch of ACIC and JMIC we are able to supply a range of fans dedicated to the industrial cooling market. The new series of cooling fans are designed from the outset to deliver powerful performance in demanding conditions, ensuring energy efficient, safe and reliable operation in your application.

Our sales and engineering teams are committed to provide you with exceptional products and technical guidance as well as ensuring your logistical needs are met. All Woods Air Movement fans are easy to select and order – our online Fan Selector tool is easy to use and will give all information needed to design your application. We are also focused on providing great after-sales support – from installation and commissioning to regular servicing.

In short; Woods Air Movement is a complete partner for your industrial cooling fans needs.

Developed to deliver outstanding performance in your Industrial Cooling applications

Designed for harsh temperatures down to -40°C.



Hot dip galvanized fan casings and motor mounting arms for durability.



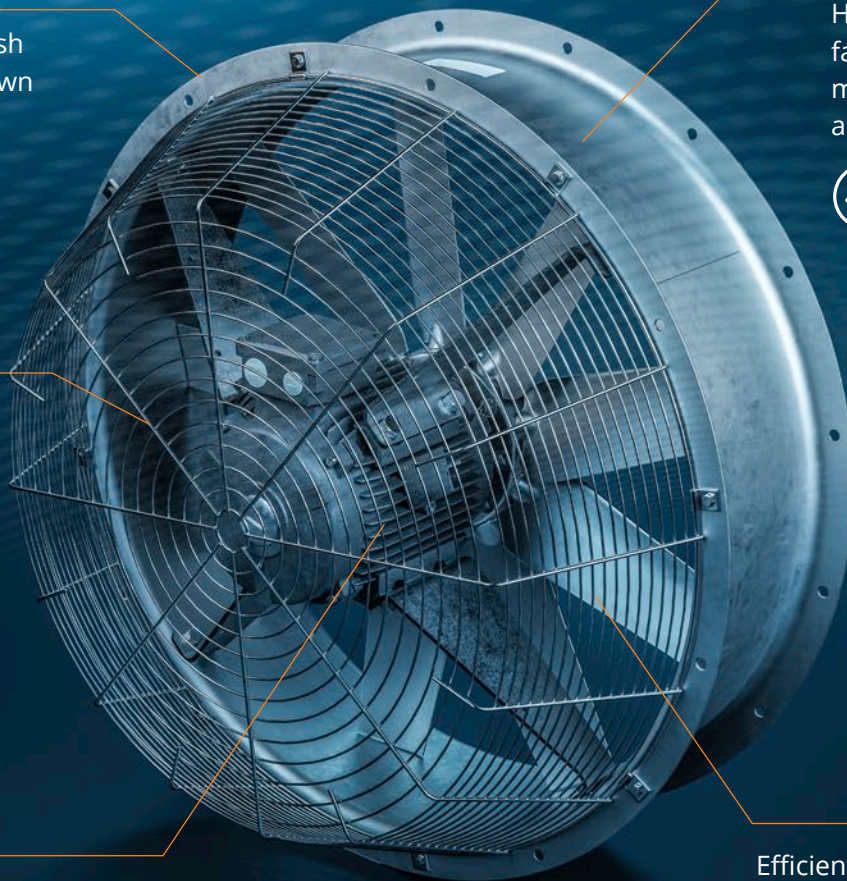
Motor side guards are included with these short cased fans to ensure safety and accordance to standards. Optional impeller side guards are available.



High efficiency - fully compliant with Fan ErP Regulation 327/2011 (2015) Tier 2 and Motor ErP Regulation 2019/1781.



Efficient impeller design with aerofoil blades for optimal performance and power usage, available in either Polypropylene (ACIC) or Aluminium (JMIC).



A great fit for your cooling fan needs

Our new product range for Industrial Cooling is designed to offer a standardised and easy-to-select solution that requires no engineering work with short lead times. Both ACIC and JMIC variants feature an enhanced AC motor specification that is specifically tailored to meet the unique demands of the refrigeration sector. Our products are fully compliant with Fan ErP Regulation 327/2011 (2015) Tier 2 and Motor ErP Regulation 2019/1781.

SUITABLE APPLICATIONS

- Coolers
- Chillers
- Condensers
- Blast freezers
- Cold Stores/rooms
- Cooling Towers
- Heat exchangers



Our team is always happy to answer your questions. You can contact us on:

- +44 (0) 1206 222 555
- quotations.woods@flaktgroup.com
- woodsairmovement.com

Specification overview



ACIC



JMIC

| | | |
|---|--|---|
| Maximum airflow | 9.5 m ³ /s (34,200 m ³ /h) | 27.2 m ³ /s (97,920 m ³ /h) |
| Maximum pressure | 480 Pa | 1,675 Pa |
| Casing style | Short cased | Short cased |
| Available sizes | 6 sizes: 500 to 900 mm | 5 sizes: 800 to 1,250 mm |
| Impeller hub diameters | 200 mm | 200, 250, 315, 400, 500 mm |
| Impeller blades | 3 or 6 | 3, 6, 9 or 12 (hub dependent) |
| Impeller blade material | Polypropylene | Aluminium |
| Motor speed options | 4 or 6 | 4 or 6 |
| High efficiency design to optimise running costs | ✓ | ✓ |
| Electrical supply | 3 Ph/50Hz or 60Hz | 3 Ph/50Hz or 60Hz |
| Motor protection | IP56 | IP56 |
| High efficiency - fully compliant with Fan ErP Regulation 327/2011 (2015) Tier 2 and Motor ErP Regulation 2019/1781 | ✓ | ✓ |
| Hot dip galvanised (BS EN ISO 1461) fan casings and motor mounting arms (304 stainless steel option available) | ✓ | ✓ |
| Low installed noise levels | ✓ | ✓ |
| Operating temperature range | -40°C to +60°C | -40°C to +60°C |
| Motor Side Guards in accordance with BS EN ISO 139857:2019 for safety | ✓ | ✓ |



MOTOR

Designed for harsh temperatures down to -40°C with increased motor protection for frequent washdowns. The motors have self-draining capillary drain plugs for easy maintenance. Non-painted anodised motors for durability in harsh environments. Available in 4 or 6 pole motors and VFS control for precise airflow and cost savings.

- Efficiency: IE3
- Power Ratings: Enhanced IC418 ratings (IEC 60034-6)
- Speed options: 4 and 6 pole and VFD control
- Operating temperature range:
-40°C to +60°C stop/start temperatures
- Ingress protection: IP56
- Insulation: Class F
- Voltage/frequency: 400V/50Hz & 460V/60Hz
- Construction: Aluminium case, A4 stainless steel fixings
- Finish: Anodised
- Overheat Protection: PTO thermostat type
- Drain Plugs: Labyrinth type/capillary self-draining
- Supply: 3 Phase (50 or 60Hz)



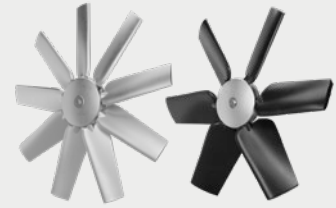
FAN CASING

Material: Casings are manufactured from mild steel to BS EN 10111 Grade DD14.

Casing Design: Casing and flange thickness varies depending on fan diameter. Short type casings, where the impeller is enclosed but the motor is exposed.

Casing Finish: Hot dip galvanised after manufacture to BS EN ISO1461.

Connection Flanges: Flanges are an integral part of the fan casing and feature fixing holes that are equally spaced around a pitch circle diameter to facilitate connection to duct work in accordance with BS EN 13351:2009.



IMPELLER

Material: Aluminium hub and polypropylene blades (ACIC) or aluminium hub with aluminium blades (JMIC). Aluminium alloy LM6 for corrosion resistance and high stress capability.

Blade Design: Unique impeller assembly design with refined aerodynamics. Blade tip gap at 0.25% of diameter for peak pressure and low noise. Adjustable blade pitch angle for optimum performance.

Hub Design: Aluminium hub and clamp-plate, with integral steel shaft insert to ensure correct motor drive shaft fit. Hub design allows for each blade pitch angle to be individually adjusted.

Manufacture Quality Assurance: All die cast impeller components are examined using real time X-ray radiography (in accordance with ASTM E-155) before machining to ensure highest quality.

Balance: In accordance with BS 848-7 / ISO 14694, Grade G16 to G6.3, depending on rated motor power.

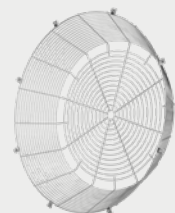
Form of Running: Form A is the standard format for this range: Airflow over the motor, then through the impeller. Form B is also available as an alternative option.

Impeller Location and Fixing: Impeller is located and fixed to the motor drive shaft by a key and keyway manufactured in accordance with BS 4235:1972. Axial location is provided by a collar or shoulder on the drive shaft together with a retaining washer and screw, fitted into a tapped hole in the end of the shaft. The screw is locked in position.

Aerodynamic Design: Fan maximum absorbed power is designed to occur within the normal working range, i.e., fan exhibits a non-overloading characteristic. In order to provide an extended operational life, impellers are designed to have low stress levels, when operated below the maximum speed stated within the published fan performance characteristic.

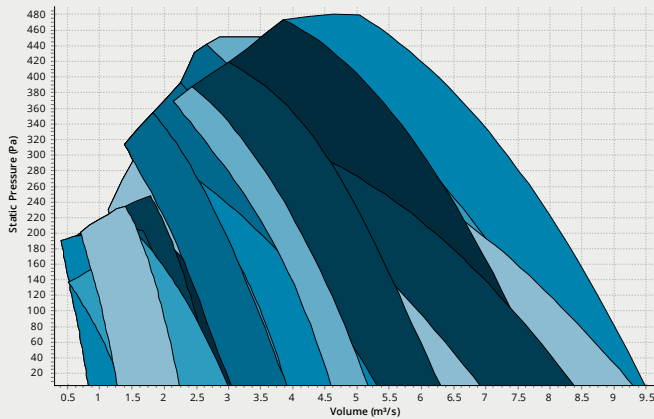
ACCESSORIES AVAILABLE

Guards, Bellmouth inlets, connection flanges, flexible connectors and silencers.

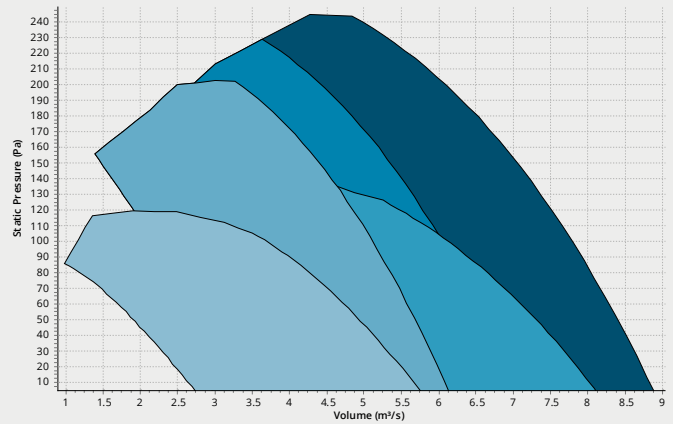


Performance charts

4 POLE



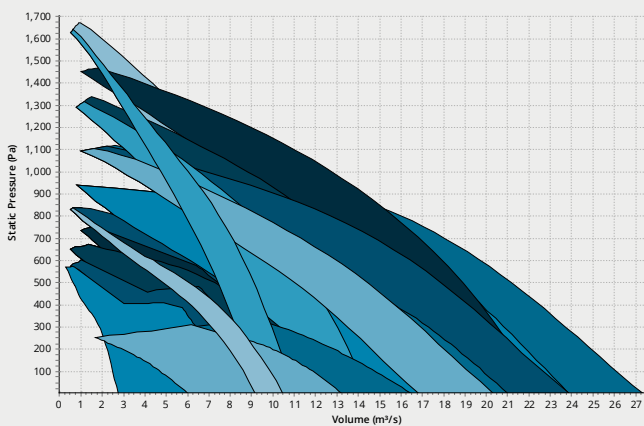
6 POLE



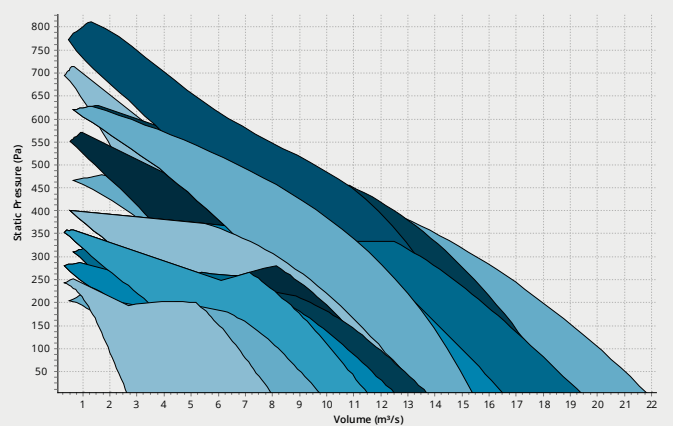
ACIC

- Volumes up to 9.5 m³/s (34,200 m³/h)
- Pressures up to 480 Pa
- Based on a short case fan with polypropylene impeller blades

4 POLE



6 POLE



JMIC

- Volumes up to 27.2 m³/s (97,920 m³/h)
- Pressures up to 1,675 Pa
- Based on a short case fan with aluminium impeller blades

The graphs above are for illustration purpose. Please view our Online Fan Selector for accurate technical information. www.woodsairmovement.com

You benefit from our high efficiency design approach

When developing products our engineers will always have energy efficiency and low life cycle cost as their primary goals. Using Computational Fluid Dynamics and Finite Element Analysis in combination with Woods' long experience from a multitude of applications we aim to produce a best-in-class fan solution. By focusing on efficiency across all areas we can create a virtuous circle of benefits for you.



1 Aluminium impeller or aluminium hub with polypropylene blades

2 Reduced product weight

4 Lower noise levels

6 Reduced operating power required

3 Smaller motor

5 Higher efficiency

7 Lower capital investment & reduced running cost

A complete fan range from Woods Air Movement

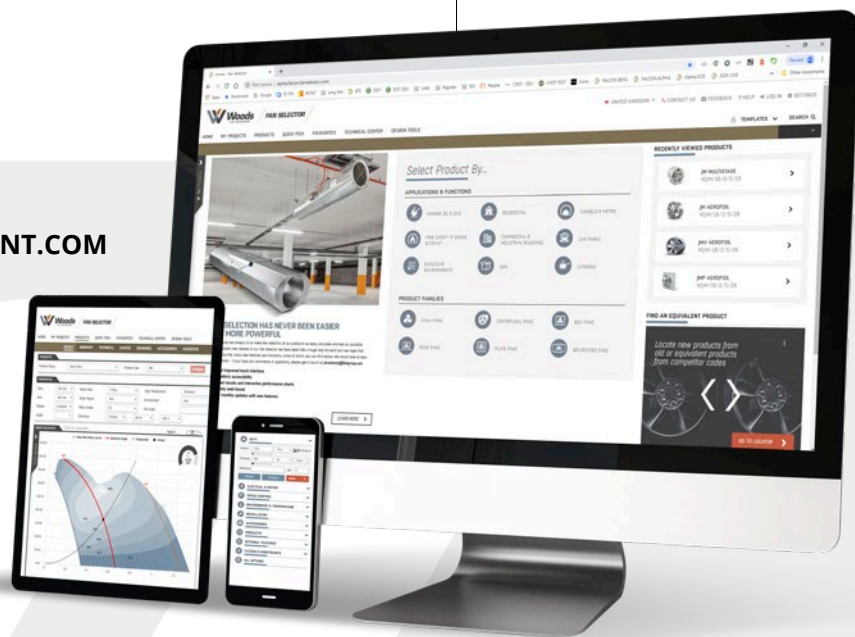
We manufacture the most reliable and best quality air movement and ventilation products for various applications and industries. To ensure you receive the best quality, we run various tests on our fans before they are delivered to your doorstep.

Most of our product range are available as standard or high temperature, please contact one of our sales team members to find out more technical information on our products. If any of products do not meet your requirements then we have in-house capabilities to assist with designing, engineering and manufacturing the perfect solution for you.

ENSURING THE BEST POSSIBLE QUALITY IN EVERY DETAIL

- All impeller parts are X-ray inspected in accordance with ASTM E155.
- We ensure our products follow the ISO1940 Balance standards and Vibration BS848 pt 7 ISO14694.
- Our fans endure impeller strain gauge tests of speed over 125% for 15min.

> **WOODSAIRMovement.COM**



PRODUCT SELECTION AND CONFIGURATION HAS NEVER BEEN EASIER – OR MORE POWERFUL

We always try to make the selection of our products as easy, accurate and fast as possible. With the brand new release of our Fan Selector we have taken a huge step forward and we hope that you will enjoy the many new features and functions – including web-based multi-platform accessibility with touch interface and interactive performance charts.

Building on more than 100 years of innovation

Woods was founded in 1909 in Colchester, United Kingdom. We began as manufacturers of small electric motors and introduced a range of propeller fans in the 1920s.



Over the years, Woods moved away from manufacturing motors and concentrated on the design and manufacture of axial fans, developing the first aerofoil blade design. This continuous development has evolved into one of the world's largest ranges of certified axial fans for almost any application imaginable including fire safety, ventilation, industrial process, oil and gas and marine.

Woods was merged with Fläkt in 2002 to create Fläkt Woods which was subsequently merged with Denco Happel in 2016 to create FläktGroup. In 2020, Fläkt Woods changed their trading name to Woods Air Movement under FläktGroup holdings and opened offices in the United States of America, Germany and Singapore.

Woods has over 100 years of experience and knowledge in designing axial flow fans and remains a distinct brand within the FläktGroup family.



OUR FOOTPRINT

Our head office is situated in Colchester in the United Kingdom with the state of the art factory. We also have a factory and office in the United States of America and Singapore as well as an office situated in Germany. In India we have installed one of the first test rigs in the country. Our products are distributed and reach various markets globally, through strong partnerships with over 70 international distributors and agents.



Woods Air Movement delivers smart and energy efficient Air Movement and Fire Safety solutions to support every application area. We offer our customers innovative technologies, high quality and outstanding performance. The widest range of Air Movement and Ventilation products in the market, and strong market presence with over 100 years of experience and manufacturing of products, guarantees that we are always by your side, ready to deliver Excellence in Solutions.

**Contact our friendly sales team today
for more information**

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Email: quotations.woods@flaktgroup.com

www.woodsairmovement.com

