

Axial fans for a more sustainable future



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Only Multi-Wing provides you with the highest flexibility and expertise to tailor axial fans to your specific application and performance needs



We provide you with...

... axial fans tailored to your application

Precision, temperature, humidity, and airflow, in various operating conditions makes a difference. We tailor solutions to specific application and performance needs

... Flexible co-design approach

We strive for collaboration and co-design fans with you using our flexible and modular platform granting you a fit for purpose solution

... superior performance on critical features

Our 80 years of heritage in aerodynamics, the defining factor in fan performance, as well as deep application expertise allows us to deliver superior fan performance

... global engineering & production network

We operate with a truly global network of sales offices, development centers and production sites providing you with supply certainty and shortest possible lead times



Energy efficiency

Maximum energy efficiency to reduce OPEX cost and CO₂ footprint



Noise level

Industry leading impeller & fan design provides lowest noise level



Durability

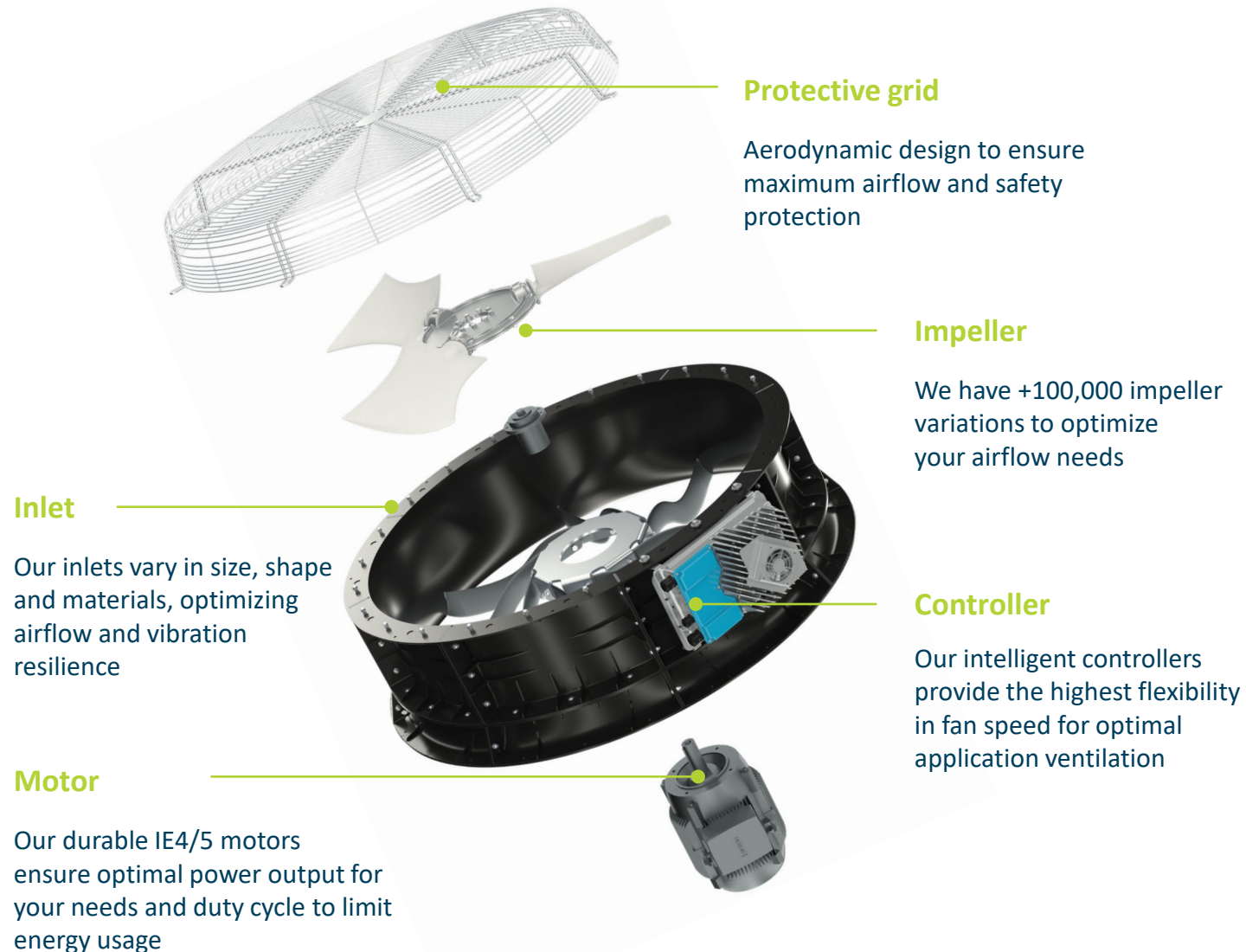
Highest quality and design flexibility to deliver longest possible fan life



Fan diameter

Fan sizes ranging 200 – 1,800 mm

We deliver an optimized axial fans by considering all components together as a complete, holistic solution



We can customize axial fans to your specific application and performance requirements

Each component is tailored through an extensive design, testing & validation process, delivering superior performance on:

Energy efficiency

Reduced OPEX and lower CO₂ footprint, with optimal energy efficiency

Noise level

Minimized turbulence and vortices to deliver lower decibels than industry standard

Durability

Lifecycle prolonged through components resistant to corrosion, vibrations, and high temperatures

Fan diameter

Fitted size and shape to your needs, ranging from 200 – 1,800 mm



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Our axial fans actively contribute to a more **sustainable** world through **energy efficient solutions**, bringing clear value to you by:

- > Supporting your green transition by reducing emissions
- > Enabling you to reach sustainability targets set by stakeholders
- > Delivering fans that exceed the latest EU EcoDirective

With our axial fans, we help you become more sustainable and address requirements of tomorrow.



Green transition

Energy efficient fans help you address the green transition by lowering energy usage (by up to 50%) and thereby reduce your CO2 emissions



Sustainability standards

Give your customers a portfolio of products to take action on tracking and lowering emissions to address demands from employees, investors and broader society



EcoDesign Directive

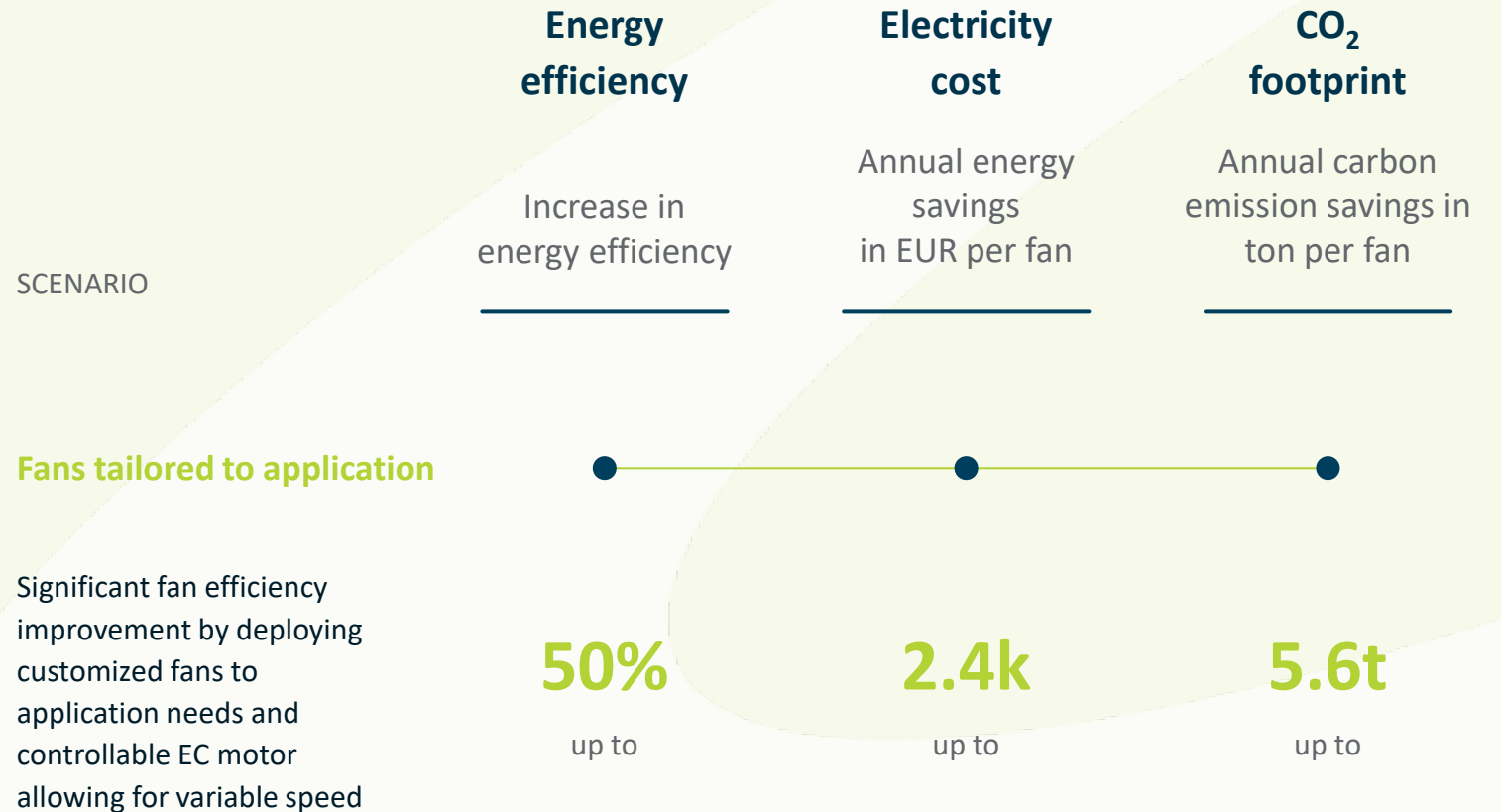
New EcoDesign Directive will likely increase energy efficiency requirements for fans by 20% and require fans to be tested on complete fan level



Through unique fan customization, we deliver the best **energy efficiency** for your exact application and performance requirements, reducing electricity costs and CO₂ emissions with an attractive payback period

- Depending on starting point, Multi-Wing can improve energy efficiency by up to **50%**
- As a result, with a tailored solution your annual electricity cost can be reduced by up to **2.4k EUR per fan**
- You can contribute to the sustainability agenda by reducing yearly CO₂ emissions by up to **5.6t per fan**

BENEFITS



Note: Benefit calculations are based on average electricity costs and CO₂ per kWh in Germany using a fixed speed motor without controller/drive. Exact benefits depend on application and specifications of fan already in operation





80 years of heritage within aerodynamics, enables us to engineer solutions that meet all your specific requirements

We have unique blade designs for any given application, providing the lowest noise level possible by tailoring the axial fan to your exact application needs

Multi-Wing develops blades with many different designs for lower operating noise levels compared to industry solutions by reducing turbulence and vortices



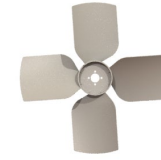
Airfoil



Sickle



True reversible



Broad paddle



EMAX



Winglets



Bristles



Add-ons for further noise reduction



OSHA Noise and Hearing Conservation Standards



Europe's Directive 2000/14/EC on environmental noise



Environmental Protection Agency's Noise Control Act



Low noise fans in heat exchange applications



Our axial fans comply with latest regulatory requirements



With 80 years of heritage in aerodynamics, we have built deep expertise across a vast number of application areas



Dry Coolers



Gensets



Industrial condensers



Cooling towers



Chillers



Industrial evaporators



Adiabatic coolers



Heat exchangers



Wood dryers & drying kilns



Radiators



Wind power



Data centers



Data centers

Rising energy usage continues to be a key challenge for data centers, and achieving green targets is a top priority, as consumers demand greener solutions. Hyperscale data center operators are chasing sustainable operations, while many Co-Location and smaller operators follow suit

Consequently, all fans required for data center applications must be highly reliable and performance to the highest energy efficiency standards. Similarly, as a large share of operating costs relates to cooling, energy efficiency fans provide significant bottom-line impact. Equip your data center with a Multi-Wing Axial fan to meet the industry-wide requirements of the future

Segment-specific differentiators



Energy efficiency

Fans operate with 24/7/365 uptime increasing the importance of keeping power consumption low

With an optimized fan design that pushes air with ease at maximum efficiency you lower power consumption & energy costs



Durability

The environment around data centers get hot and humid proving to be harsh operating conditions for fans

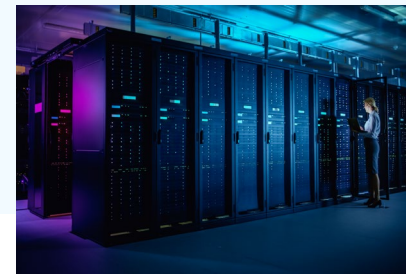
Multi-Wing's axial fans use an EC PM motor and have an IP55 corrosion resistance, making our fans very durable



Noise level

Low noise is a top priority as data centers gain proximity to residential areas

Our 80 years of aerodynamics expertise enable us to design impellers and fans that generate lowest possible noise levels



Cooling towers

Heavily exposed to corrosive and wet environments, fans in cooling towers need to be very durable. Cooling towers come in larger but variable sizes so they can be fit for purpose, which also presents variability in the optimal size of the fan

Multi-Wing can equip your cooling towers with large variable speed fans, tailored for corrosive operating conditions. Our customized designs result in significant energy savings, eliminating the need to invest in several smaller fans

Segment-specific differentiators



Fan diameter

Cooling towers are large fixtures, requiring equally large industrial cooling fans

With Multi-Wing's long aerodynamics history, we customize axial fans up to 1,800 mm in specific shapes and formats, tailored to your application



Energy efficiency

Impeller diameters for cooling towers are above average, making energy important, as operations require extra power

Our optimized fan design, ensures lower power consumption, resulting in better efficiency



Durability

Cooling towers require both human and machine capacity for maintenance, which is cost and time consuming

With the highest corrosion protection, and electronics placed securely, a long lifecycle is ensured



Wood dryers & drying kilns

Consistency and up-time is key for drying processes that take a significant amount of time. A drying process must be continuously monitored, ensuring material is dried at the right rate, at the right temperature, and to the required residual moisture. As the airflow level and consistency will have great impact on the product quality

Multi-Wing's axial fans are tailored to deliver top performance and uniformity in drying, while maintaining low noise levels, allowing for maximum up-time

Segment-specific differentiators



Noise level

Wood drying kilns are gaining proximity to residential areas, posing a problem for noise levels

With Multi-Wing's reversible impeller, noise levels are lower than industry standards, reducing kiln downtime



Energy efficiency

Drying technology must work economically and in a timely manner, requiring high energy efficiency

The Multi-Wing reversible impeller pushes air with ease at low effort, meaning lower power consumption and increased efficiency



Even drying

Air circulation must be uniform and adequate to ensure even drying, and top quality. This demands reversible circulation

Multi-Wing provides tailored reversible impellers to ensure the most uniform drying for your application



Gensets

Genset engine cooling requires axial fans featuring high durability and reliability, due to extreme temperature exposure. Similarly, low fan power consumption is critical, to ensure gensets deliver adequate power to its application

Multi-Wing's axial fans feature minimal blade deflection, reduce parasitic power losses, and can withstand high temperatures. Solutions can be tailored to both mobile and stationary gensets, with an option to be crankshaft mounted

Segment-specific differentiators



Durability

Axial fans must endure extreme environments – meeting mechanical and electrical specifications, and operators' needs is critical

Our axial fans are 100% customizable, giving you a robust design, avoiding downtime and costly repairs



Energy efficiency

Many power generators run for many hours a day. Energy efficient cooling systems help reduce the cost of operation

With our optimized impeller design, you benefit from lower power consumption and increased efficiency



Versatility

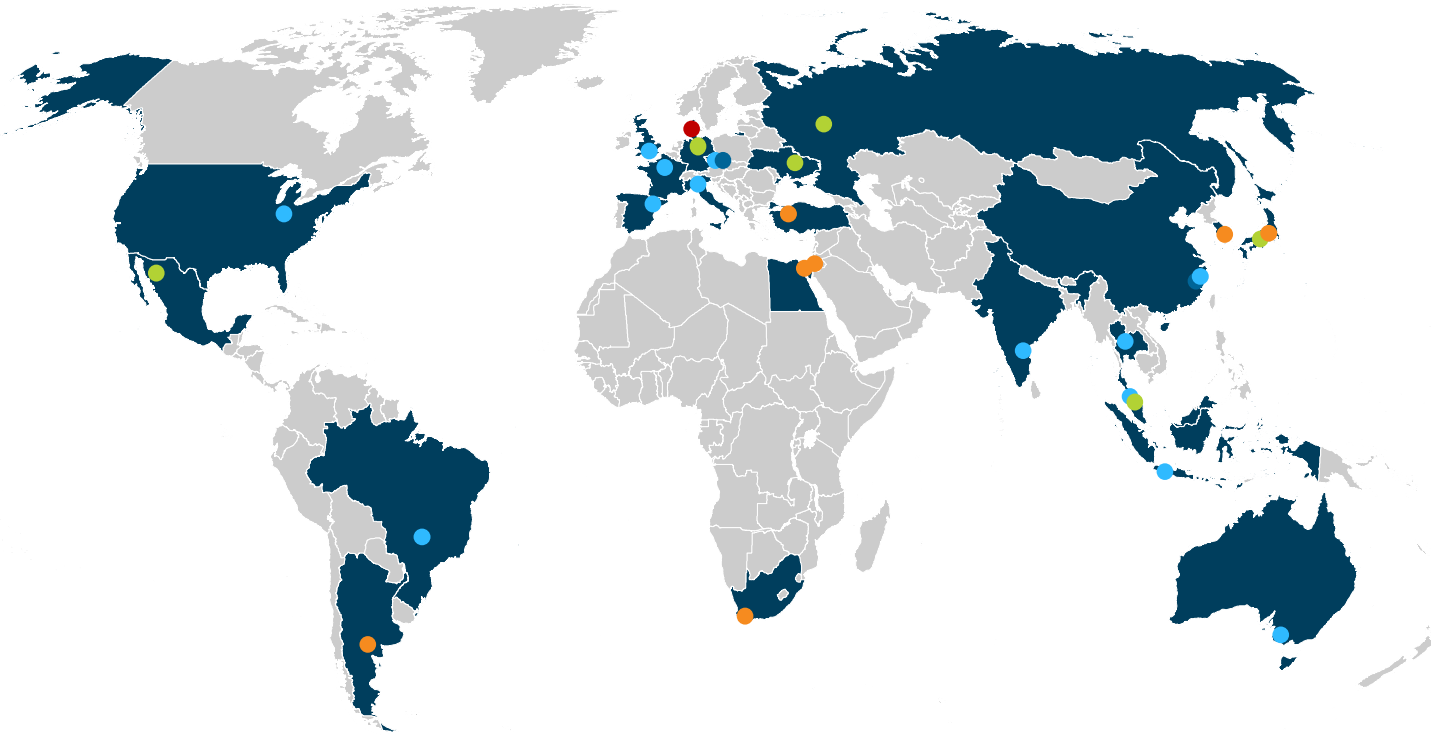
There are many different types of gensets, each with unique requirements

Multi-Wing is fully customizable to any application, tailoring materials and electronics to temperature needs and adjusting impeller sizes



Our global network provide you with supply certainty and shortest possible lead times anywhere in the world

MULTI-WING GLOBAL FOOTPRINT



● Head quarter ● Production center and sales office ● Development center ● Sales office ● Third party distributor

We have a **global reach** with **local presence** to support you anywhere in the world

We offer a truly global production and sales network. This is thanks to the expertise and passion of over 380 Multi-Wing engineers and technicians worldwide

Our services are available worldwide, and our different departments collaborate closely. This is the key to our success, and the driver behind our highly flexible and modular ways of working






MULTI-WING™

Shaping airflow for future generations