



Air in Motion. **Wolter Fans.**





We move **air.**

Owing to the diligence and conscientiousness of its people, the south-western region of Germany, and especially the Black Forest, has developed into a centre of fine-mechanical manufacturing and industrial engineering and production over the past few centuries. As a family enterprise, we feel compelled to these values and traditions of our home.

Since 1971, Wolter GmbH Maschinen- und Apparatebau KG has been engaged in the design and manufacturing of ventilation fans and related equipment for the international markets.

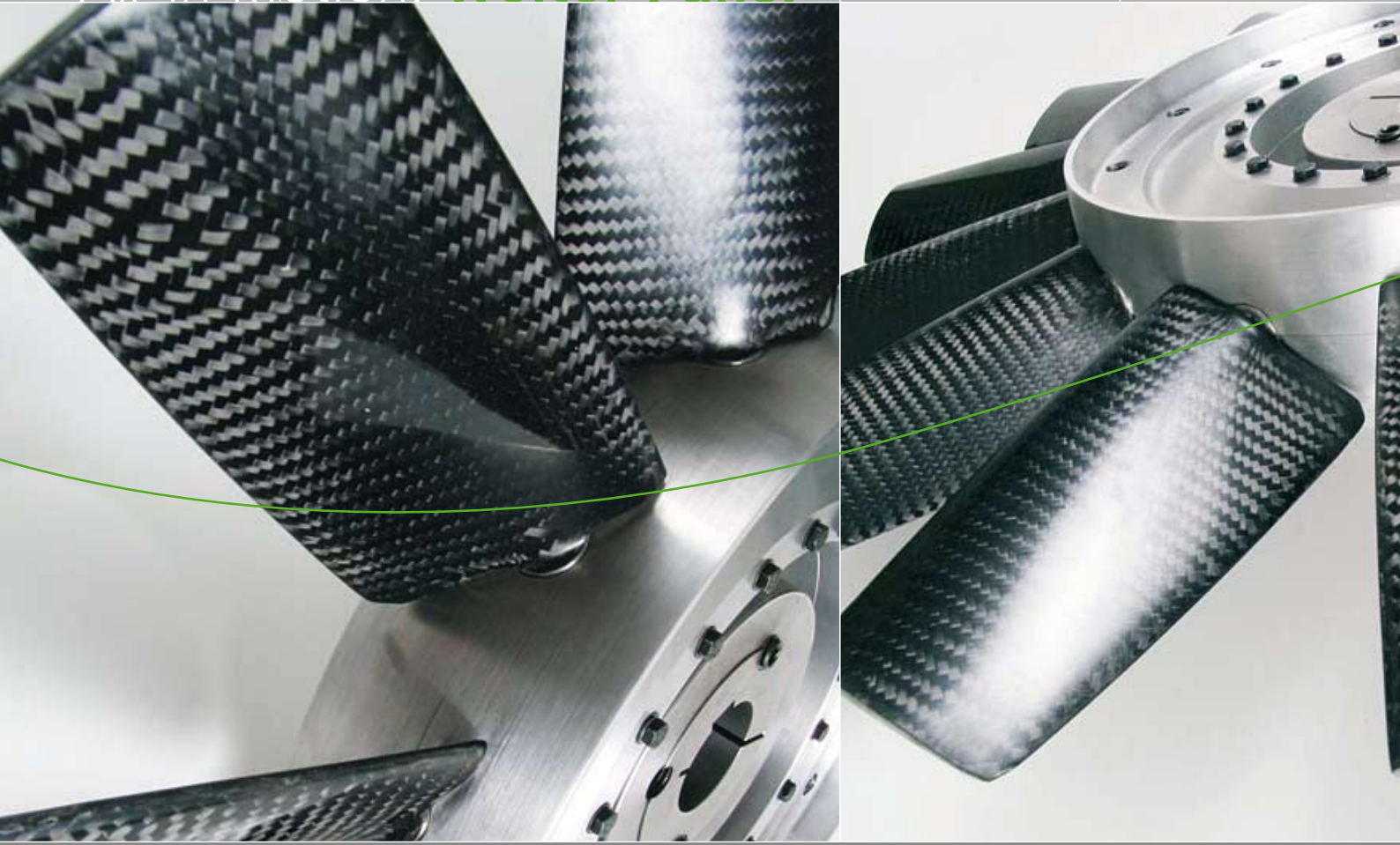
Both, the continuous improvement of existing product ranges and manufacturing processes, as well as the innovative development of new product lines has allowed us to expand our business

into new markets. Today, we have established a significant market position not only in the building services sector, but also in other industries. One of our main growth drivers, for example, are smoke-extraction and car-park ventilation systems, where we are among the leading suppliers in Europe.

On the following pages, we would like to provide you with an insight into the scope of our experience and the comprehensiveness of our product range. However, these impressions can not replace the personal encounter. We would like to be your competent partner for HVAC solutions. Approach us with your questions – we look forward to meeting you.

A handwritten signature in black ink, appearing to read "Hans-Rudolf Kresse".

Hans-Rudolf Kresse
Managing Director



Carbon Fiber Composite Axial Impellers

High tensile strength at low weight: Carbon Fiber Composites push the boundaries of axial fan performance.

- › Significantly higher circumferential speeds extend the performance range.
- › Minimised start-up and reverse times, reduced starting currents.
- › Smaller fan diameters at comparable performance.
- › Lower impeller weight relieves stress on the motor bearings and reduces structure-borne noise.

Continuous Optimisation

Re-engineering the proven AXV range: the aerodynamic and structural re-design of our axial fan impellers resulted in enhanced performance at significantly lower weight. For example, the weight of an impeller of diameter 1000mm with 10 blades was reduced by as much as 26%. A new pitch angle setting system allows to adjust blades without a measuring tool and serves as an anti-twist device at the same time.





We engineer.

The technological, ecological and economic framework of industrial manufacturing is becoming increasingly complex. The demand for more energy-efficient products and a responsible use of natural resources, combined with the need for a flexible and cost-effective manufacturing process, determine today's competition.

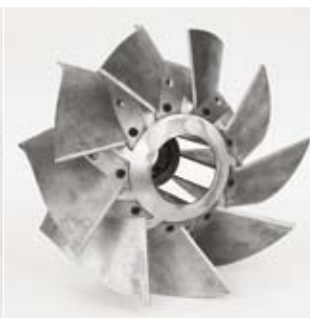
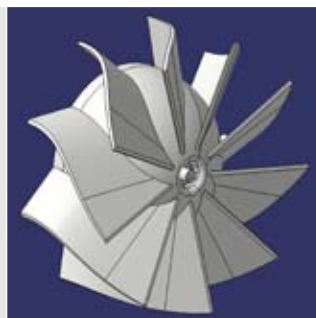
The development of our products incorporates aerodynamics, drive and control technology as well as acoustics and vibration engineering. The highly complex interrelation between these factors always represent an engineering challenge that we face in each new project, using innovative design tools such as Computational Fluid Dynamics simulations.

We innovate.

When designing new products, or when optimizing existing ones, we are prepared to defy conventions. WOLTER is the first manufacturer to introduce Carbon Fiber axial impellers in serial production fans, thus significantly enhancing all crucial performance parameters to an extent that can not be achieved by traditional metallic materials.

Mixed Flow Inline Fans

Our newly introduced range of RFE Mixed Flow Inline Fans combine the characteristics of axial and centrifugal fans. The Mixed Flow Impeller allows for an axial airstream at higher pressure compared to an axial fan of the same diameter.

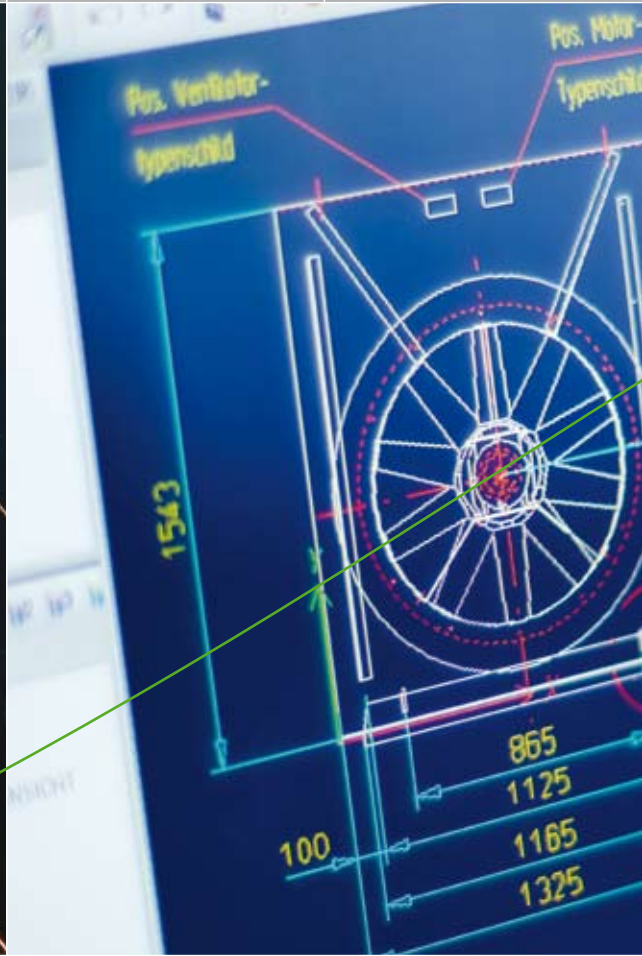


› Design and simulation.

› Verification by prototyping.

› Serial production.

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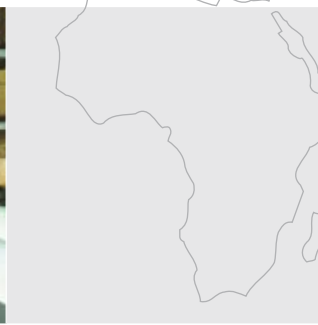
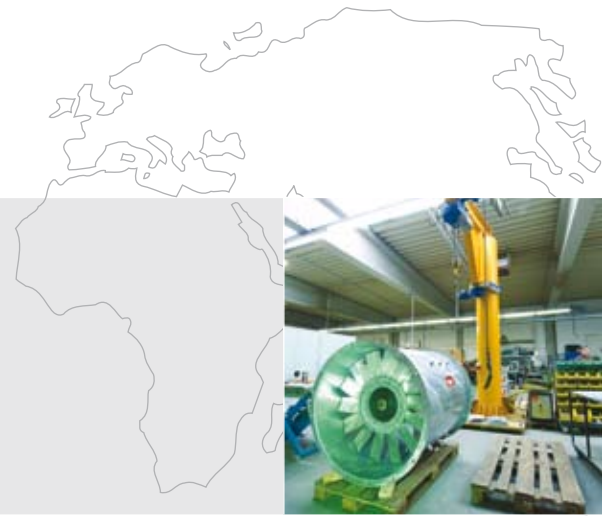


We provide.

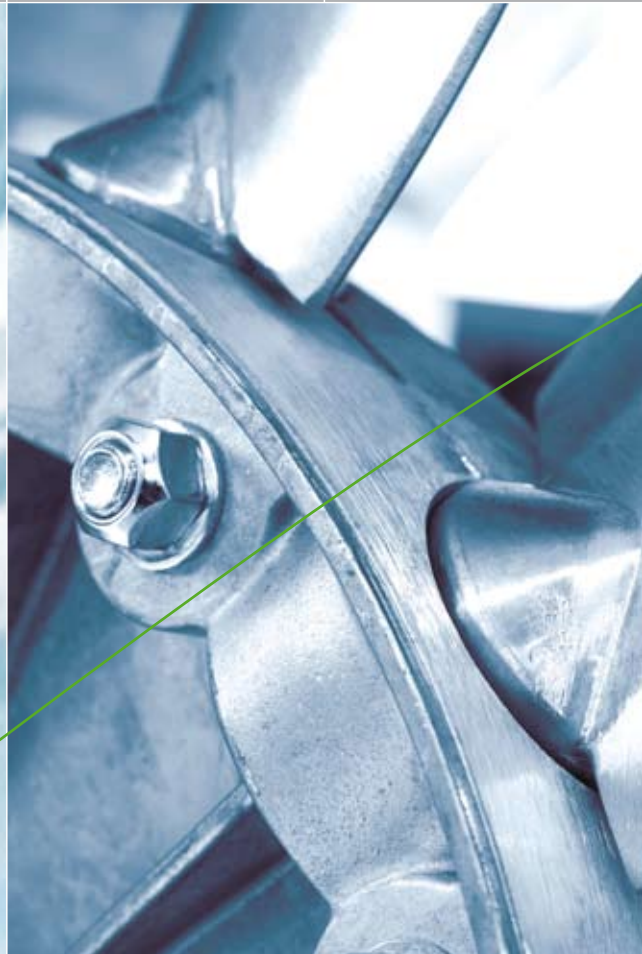
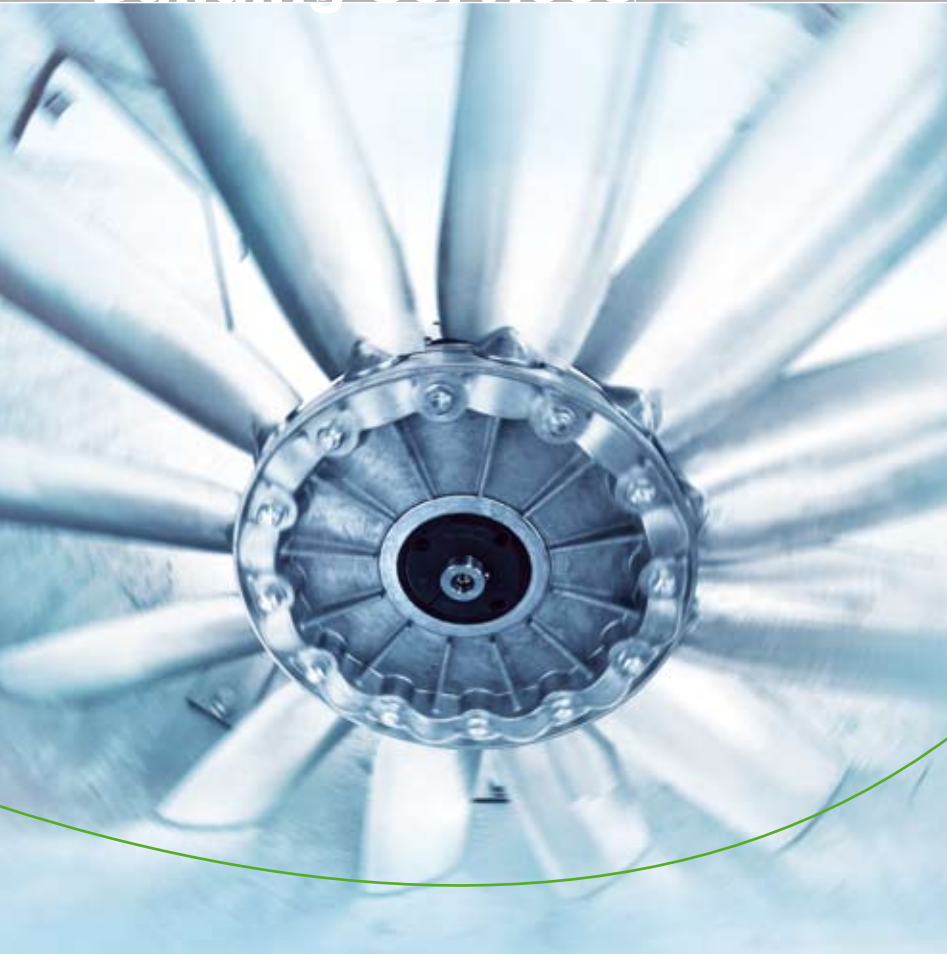
WOLTER maintains two production facilities in Germany. A wide range of modern machinery allows for a high degree of vertical integration and a constant high level of quality. Our toolmaking capacity for injection-mould parts is also used by other manufacturers, for whom we serve as a supplier of components. It is understood that our quality management system is certified in accordance with DIN EN ISO 9001:2008.

For research and development, quality assurance and factory acceptance tests, amply dimensioned in-house testing facilities and measuring equipment is at our disposal.

All development, sales and commercial departments are centrally located in our head office in Malsch-Völkersbach. Our sales staff is supported by a wide network of agents and sales representatives. Our local partners will assist you during all stages of your project, from design to after-sales service.



Building Services



Vertical Jet Fans.

149 vertical WOLTER Jet Fans are in operation at the Esplanade car park of the Munich soccer stadium. Here, for the first time, the impulse ventilation principle has been applied in a vertical arrangement.



We move **air.**

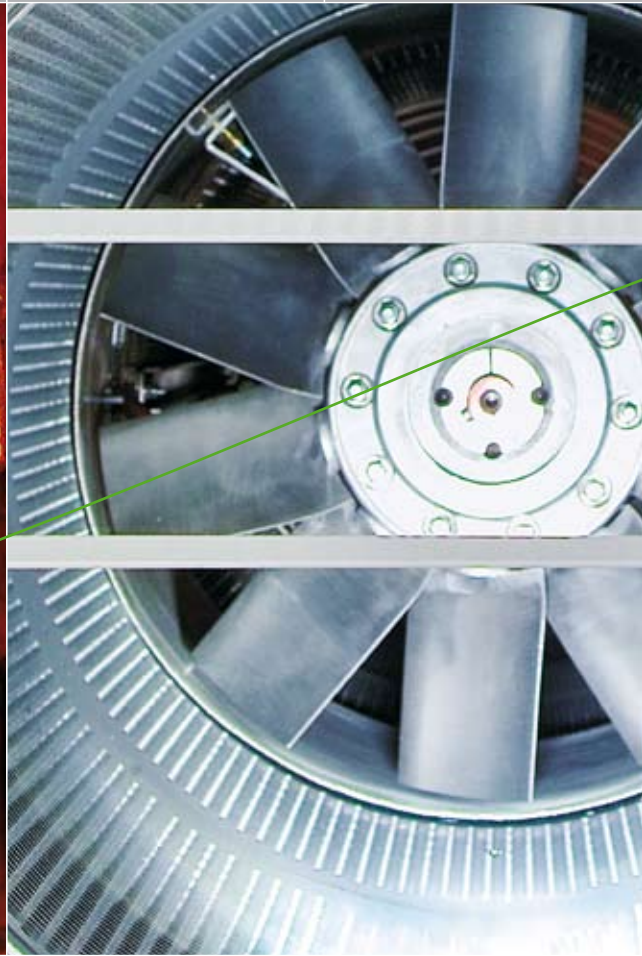
Our products are well-proven in virtually all general ventilation and air-conditioning applications and meet the demand for a higher level of climate quality of residential, commercial and public buildings. Modern drive and control technology enhances efficiency and therefore sustainably lowers a building's operating expenses; a decisive factor when planning new projects or redeveloping existing ones. Aerodynamically optimised impellers and casings lower noise emissions to a minimum.

Our standard product range for building services is comprehensive and can be supplied from stock within very short lead times:

- › Centrifugal Fans.
- › Axial Fans.
- › Duct Fans.
- › Tube Fans.
- › Mixed Flow Fans.
- › Roof Fans.
- › Slim Air-supply Units.
- › Heat Recovery Units.
- › Standard Components and Accessories.
- › Control Equipment.



Smoke-extract Fans: Life Saving Technology



Jet Fans

- › Jet Impulse Fans for car park ventilation 300°C/120min. certified in accordance with DIN EN 12101-3.



Smoke-extract Axial Fans

- › 400°C/120min. and 300°C/120min. certified in accordance with DIN EN 12101-3.





We protect.

Safety is an increasingly important aspect in today's building technology, both in the design of new projects, or when retrofitting existing constructions.

Smoke exhaust fans are playing a vital role in this respect: smoke gases developing during a fire are extracted quickly and safely, keeping escape routes mostly smoke-free. This provides good visibility and more time for escaping persons on their way through the building, while protecting them from toxic smoke gases.

Damage to the building caused by smoke and heat can also be significantly reduced. For the smoke removal in covered car parks, WOLTER offers innovative custom-tailored ventilation concepts, where jet fans, supply and exhaust fans, sensors and controls are working hand in hand to react dependent on the situation, and move the smoke out of the car park on the shortest possible way. The intelligent controls prevent a spreading of the smoke to adjacent smoke sections, so that fire walls and even sprinkler systems can often be omitted.

This does not only improve the safety of the car park, it also provides for a brighter, more open layout. The cost for installation, operation and maintenance are normally considerably below those of comparable conventional ventilation systems. As a supplier of turnkey systems, we support you from the design stage up to commissioning. Besides their important safety role during a fire, WOLTER smoke exhaust fans of course also fulfill the requirements of the regular day-to-day building ventilation.

WOLTER axial and jet smoke exhaust fans are tested and certified by an independent third-party institute according to the regulations of DIN EN 12101-3.



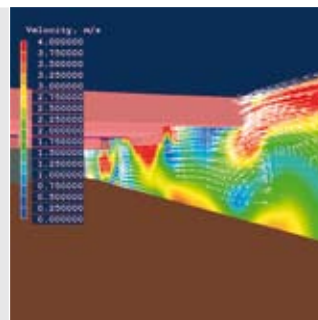
Portable Smoke-freeing Fans

- › Standard equipment of many fire brigades worldwide.



Smoke-extract Roof Fans

- › RVHT 355-710 400°C/120min. certified in accordance with DIN EN 12101-3.



Industrial Applications



Wind Power Plants

WOLTER fans cool the generators of many windmills.

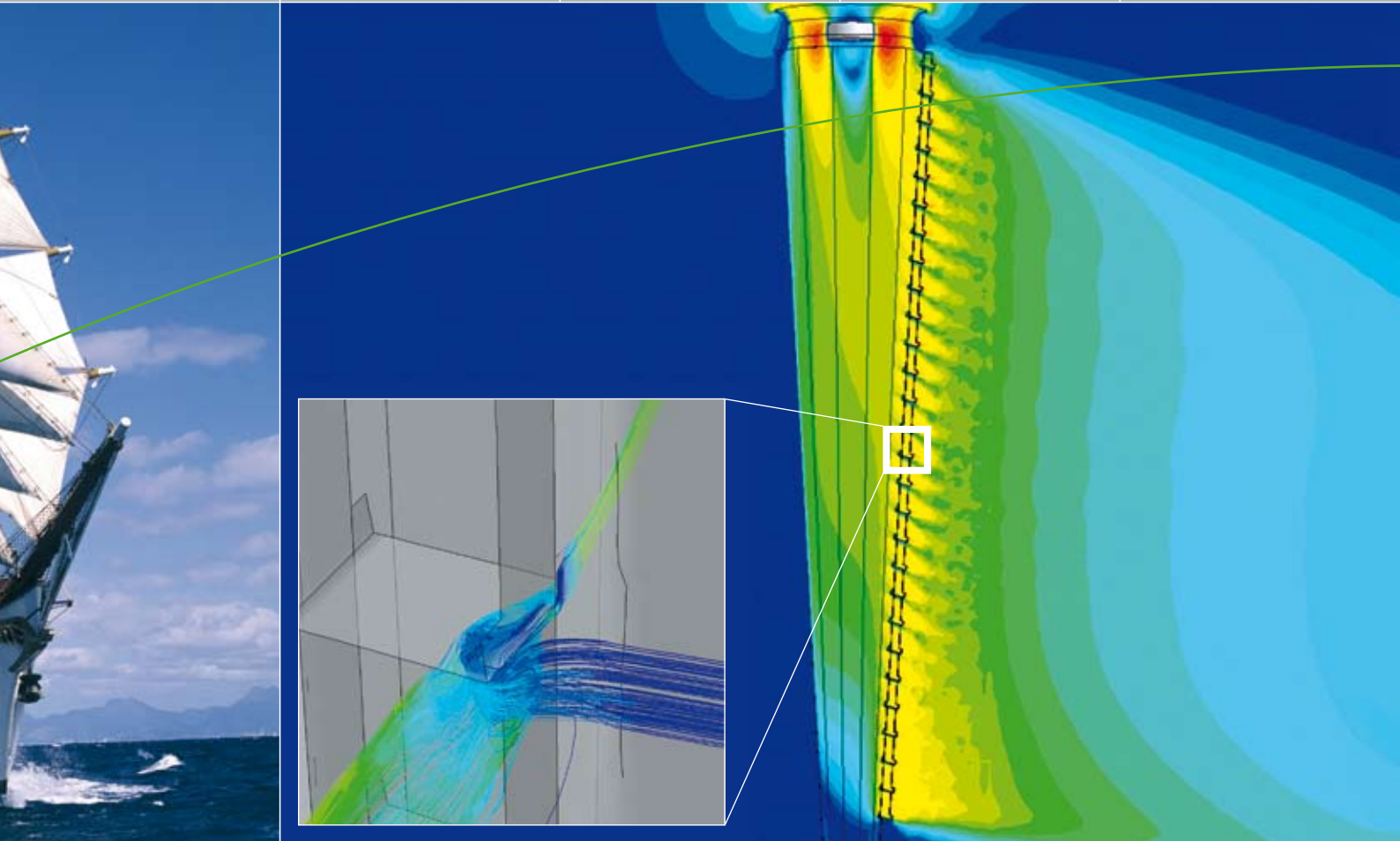


Fresh Air

WOLTER axial, centrifugal, duct and tube fans are installed on board Gorch Fock, the sailing drill ship of the German Navy.



› Fans and Air-handling Units for the marine and off-shore industries.



Industry-specific Solutions

In close co-operation with our OEM customers, we optimise the interaction of the fan and the system, exemplified here in a drying system for building materials.

We **develop.**

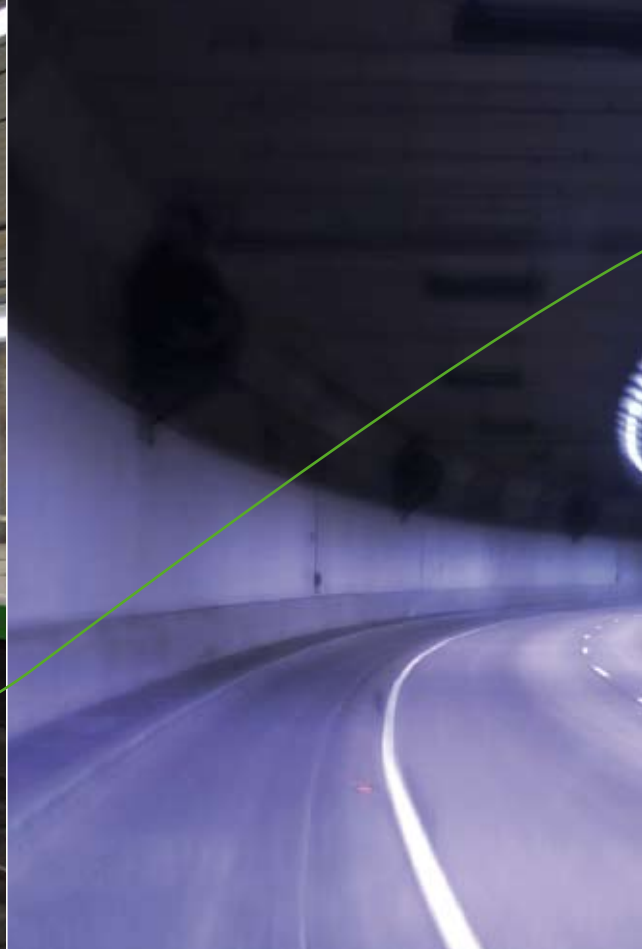
WOLTER products are used in a wide variety of industrial applications. The close co-operation with our OEM customers often results in highly specific solutions. Diligent design, accurate production and thorough quality control form the basis of many long-term business relationships.

Our range of chemical-resistant centrifugal fans are suitable to convey contaminated or corrosive industrial process air. Many of our products are

available in explosion-proof executions for use in hazardous areas.

Our main industrial markets are the marine industry as well as different drying applications, for example in the food processing or building materials industries.

Tunnel and Metro Ventilation



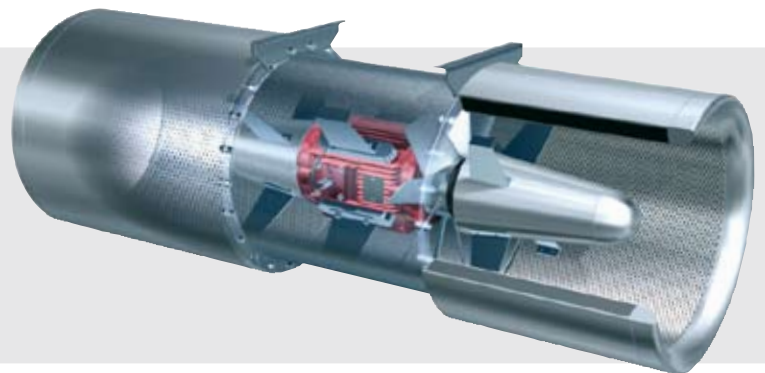
Axial Fans

- › Tunnel Portal Fans up to size 2000.



Tunnel Jet Fans

- › Certified up to 400°C/120 min. according to DIN EN 12101-3, for unidirectional or reversible operation.





We create.

With the rapidly growing amount of traffic worldwide, especially in urban areas and city centres, road tunnels are becoming more and more a high-risk bottleneck of urban infrastructure. As a result, the ventilation and smoke exhaust systems as a vital component of the safety concept of such tunnels, are becoming a matter of public concern.

The relevant design factors for each individual tunnel can vary in a wide range, depending on the traffic type and load, the geometrical properties, as well as the geographical and meteorological conditions of the environment of the tunnel. The immissions of noise and polluted exhaust air into the surrounding area should be kept to a minimum. The scenarios for ventilation and smoke exhaust operation must be individually adapted to these parameters. We can offer support for the design and optimisation.

We advise.

WOLTER offers specifically adapted fans for longitudinal and transverse ventilation concepts, which are certified up to temperature class F400. Stainless steels of different grades are commonly used, which withstand even highly corrosive tunnel atmospheres and abrasive particles in the airflow, and guarantee the reliable function of the fan in standard and emergency operation.



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