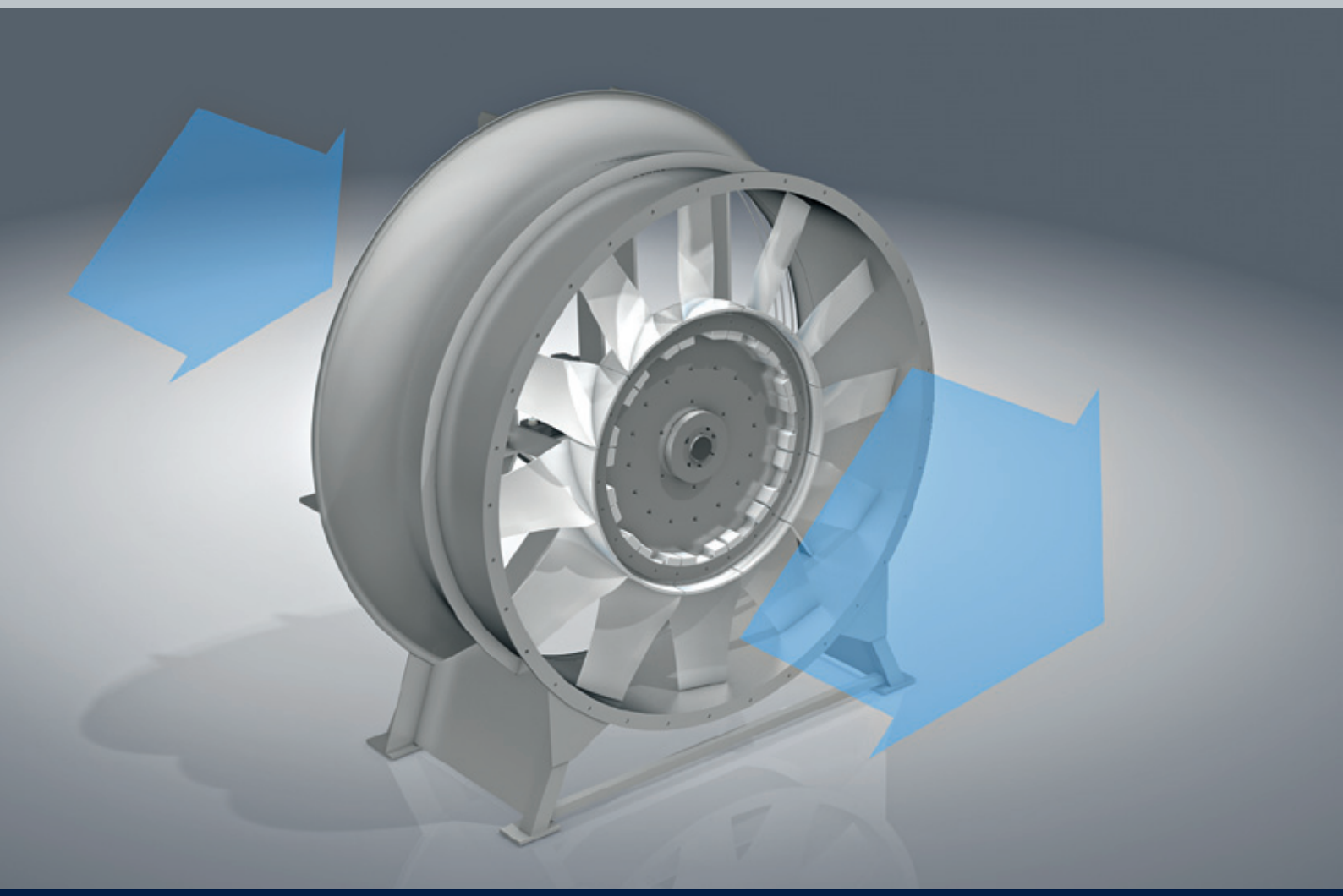
The Innovation Company

LTG Aktiengesellschaft



LTG High Performance Axial Fans

High air volume
High energy efficiency up to 89%

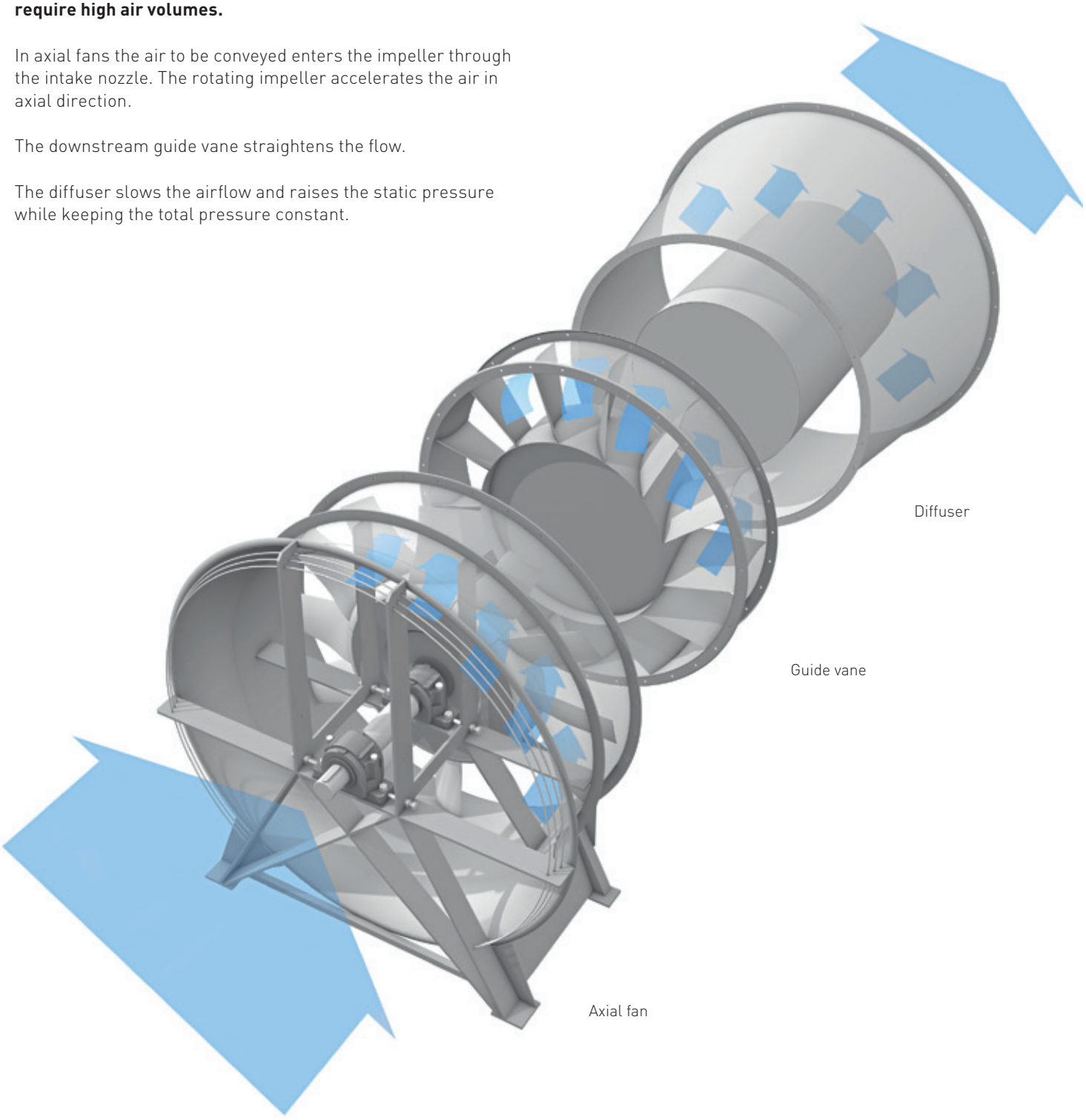
LTG High Performance Axial Fans

LTG axial fans are continuous flow machines for conveying air or gases. They are especially suitable for applications that require high air volumes.

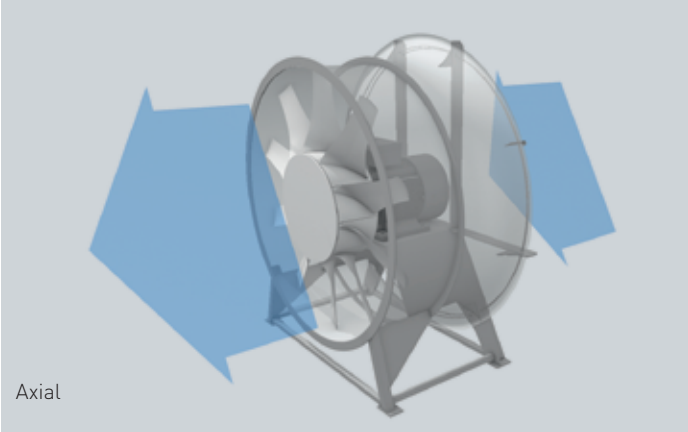
In axial fans the air to be conveyed enters the impeller through the intake nozzle. The rotating impeller accelerates the air in axial direction.

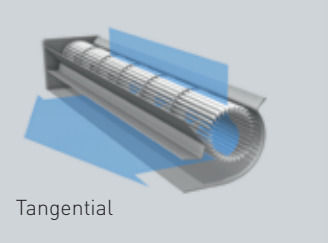
The downstream guide vane straightens the flow.

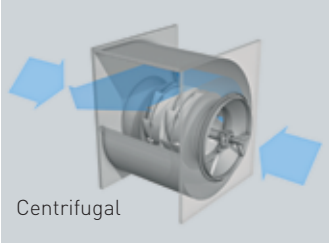
The diffuser slows the airflow and raises the static pressure while keeping the total pressure constant.



Choose LTG High Performance Axial Fans


Axial


Tangential


Centrifugal

LTG High Performance Axial Fans for solving your air handling problems

The wide spectrum ranges from low to high pressure fans, including the perfect fan type with suitable performance characteristic for any given operating point.

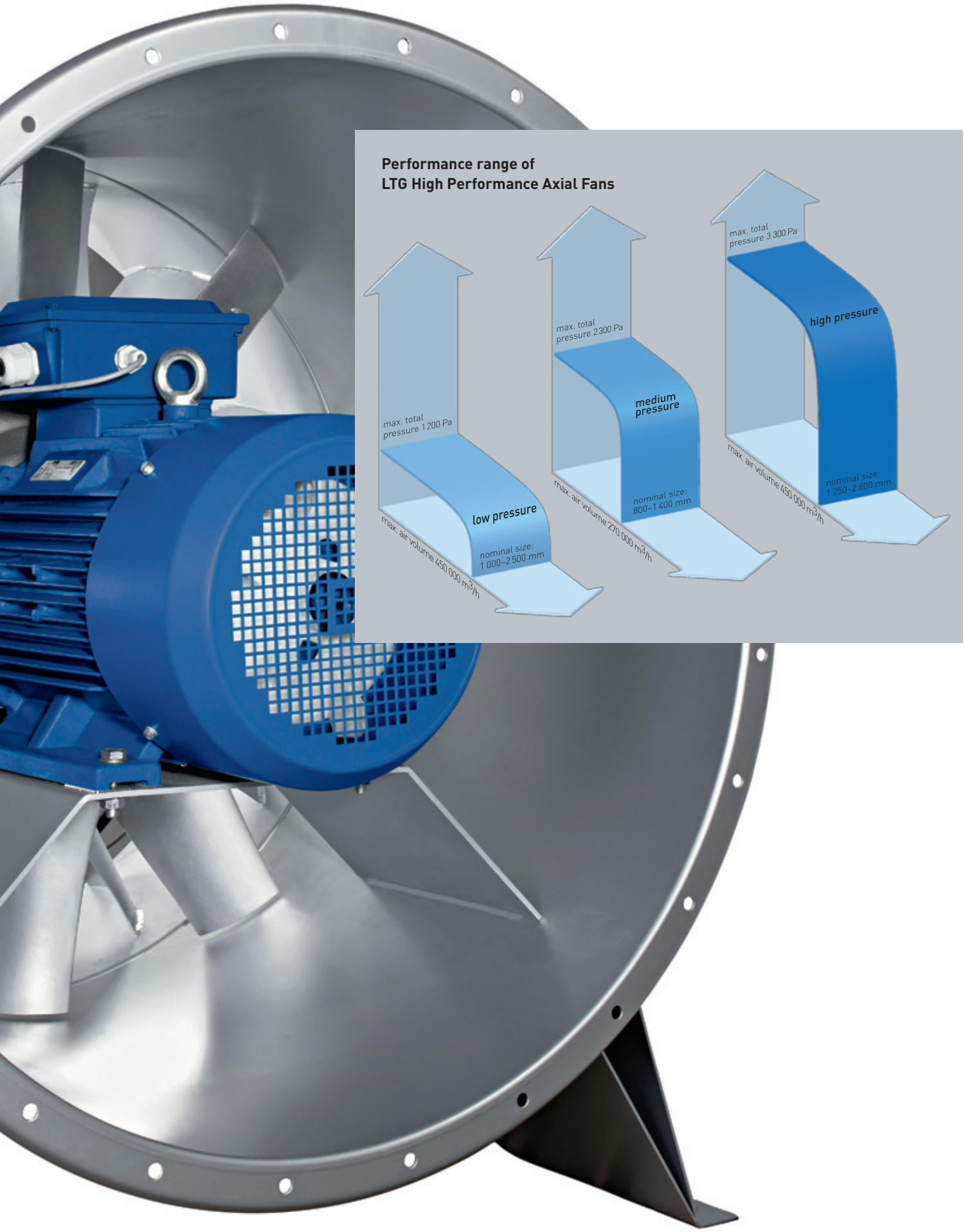
Besides standard models, specifically designed models for integration into existing systems are available.

LTG Aktiengesellschaft offers fans for all airflow patterns: the best prerequisite for objective technical advice.

Advantages:

- High air volume
- Optimum aerodynamic characteristics
- High degree of efficiency
- Energy-efficient drives
- Characteristic curve with limit rating (no motor overload under operating conditions differing from optimum design range)
- Quiet operation due to optimized impeller and housing design
- Long life expectancy due to robust design
- Designs for use under extreme conditions (e.g. high temperatures, aggressive media)
- Explosion-proof models according to ATEX
- Customer-specific solutions

LTG High Performance Axial Fans



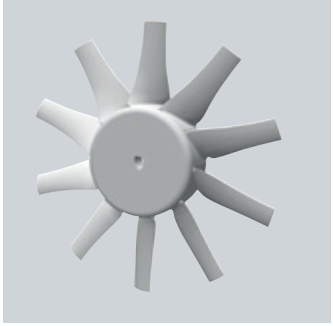
Our extensive product range

series	nominal size	air/gas temperature	max. air volume	max. total pressure	pressure range
VAN	1 000–2 500 mm 39.4–98 in	-5 to +40 °C 23 to 104 °F	450 000 m^3/h 265 000 cfm	1 200 Pa 4.8 in H_2O	low pressure
VAR/VAT	800–1 400 mm 31.5–55 in	-5 to +40 °C 23 to 104 °F	270 000 m^3/h 160 000 cfm	2 300 Pa 9.2 in H_2O	medium pressure
VAH	1 250–2 800 mm 49.2–110 in	-5 to +40 °C 23 to 104 °F	450 000 m^3/h 265 000 cfm	3 300 Pa 13.2 in H_2O	high pressure

Customer-specific solutions on request.

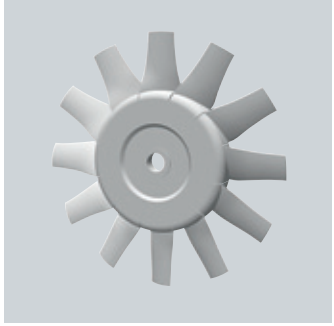
IMPELLER DESIGNS

VAN



VAR/VAT

VAH



LTG High Performance Axial Fans

VAN/VAH

LTG axial fans series VAN and VAH are high performance fans with optimum efficiencies of 89%. They keep operating costs to a minimum, especially when used in continuous operation, and have proved in air-processing systems of all kinds.

Specification:

- Welded steel housing, painted
- Impeller made of high-alloy cast aluminium for highest circumferential speeds and optimum efficiency
- Profiled impeller blades
- Optimized air intake nozzle for chamber installation
- Drive options:
  V-belt or flat belt drive, direct drive through coupling or through placement of the impeller on the motor shaft

Axial fan series VAN

VAR/VAT

LTG axial fans series VAN and VAH are high performance fans with impeller blades that can be adjusted when stationary, permitting optimum setting of the characteristic curve for any given operating point. The fans are especially suitable for industrial plants of all kinds.

Specification:

- Welded steel housing, painted
- Impeller made of high-alloy cast aluminium for highest circumferential speeds and optimum efficiency
- Profiled, adjustable impeller blades (when stationary)
- Optimized air intake nozzle for chamber installation or with flange for pipe installation
- Direct drive through placement of the impeller on the motor shaft

Axial fan series VAR

Applications of LTG High Performance Axial Fans:

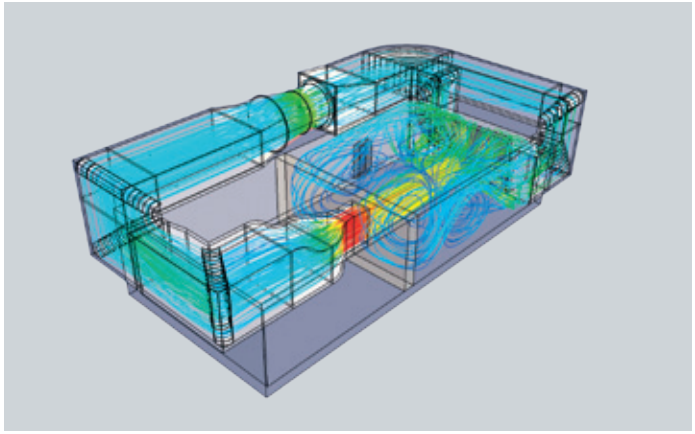
- Agricultural engineering
- Air-conditioning technology
- Air processing technology
- Automotive industry
- Building materials industry
- Chemical industry
- Dedusting technology
- Drying technology
- Environmental technology
- Paper industry
- Power plant engineering
- Process engineering
- Refrigeration technology
- Surface technology
- Textile machinery design
- Tobacco industry
- Wood industry
- ...

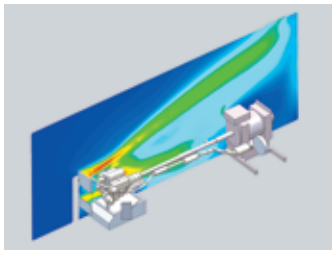
LTG Engineering Services

Make use of our knowledge to solve your problems

Whether you are designing a production facility, a building or a machine, our highly qualified engineers will assist you with your ventilation, airflow and air conditioning problems from the very start.

As professionals, we can provide everything you need for optimum implementation of your project: individual advice, broad know-how and the necessary tools, for example, a fully equipped R&D lab.





Our services

- We analyze your existing systems, machinery and processes.
- Together with you, we define your requirements, taking all the relevant parameters into account.
- To find solutions, we use our broad know-how plus numerical and experimental flow analysis.
- The result: solutions that are tailored according to your needs. For example, we optimize the airflow in your process and maximize your energy efficiency.

On-site measurements

Our specialists determine the parameters of the existing system on site. Based on these parameters, together with you, we define your requirements and suggest ways to solve your particular problem. This information is used for numerical flow simulations and experimental verification.

Computational Fluid Dynamics (CFD)

Computational fluid dynamics permits the calculation and visualization of airflow for existing or planned systems and processes. By varying different parameters we develop reliable, innovative flow concepts and significantly shorten the development time.

Experimental flow investigations and optimization

The visualization of airflow on site or in an LTG flow laboratory, at reduced or original scale, provides certainty. Process parameters such as air speed, pressure and temperature can be optimized. We apply the results of CFD simulations to the given situation and verify them with the product or process.

Acoustic optimization

Measurements of your product's acoustic power level in LTG's reverberant echo chamber are part of our engineering services. Here we analyze sound spectra and optimize your product's acoustic properties in a systematic manner. Additionally, we measure sound pressure levels on site at your workstations and systems.

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LTG Aktiengesellschaft

Comfort Air Technology

Air Conditioning Systems
- Dezentralized Façade Ventilation Units
- Fan Coil Units
- Induction Units, Active Chilled Beams

Air Diffusers
- Linear Air Diffusers
- Wall and Floor Mounted Air Diffusers
- Swirl Diffusers
- Industrial and Special Air Diffusers

Air Distribution
- Flow Rate and Pressure Controllers
- Shut-off and Balancing Dampers
- Silencers

Process Air Technology

Fans
- Tangential Fans
- Axial Fans
- Centrifugal Fans
- Fahrtwind-Simulators

Filtration Technology
- Suction Nozzles
- Dampers
- Filters, Dust Collectors
- Separators, Compactors

Humidification Technology
- Air Humidifiers
- Product Humidifiers

Engineering Services

Fluid Engineering
- Flow analysis
- Flow visualization
- CFD simulations
- Flow optimization
- Air conditioning concepts

Thermodynamics
- Calorimetric performance measurement
- Thermal, dynamic, unsteady system simulations

Acoustics
- Sound level measuring
- Vibration analysis
- Echo chamber measurement
- Acoustic optimization

Comfort
- Evaluation
- Optimization

Customer-specific Solutions
- Product development
- Process optimization
- Installation analysis

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