Air Technology Solutions for Humans and Products.
History

1919: Dr. Albert Klein, Co-worker of Dr. Willis Carrier, USA – first Patent for an Induction System

1924: Foundation of LTG as first Company in Europe Specializing in Air Conditioning Systems.

Special Department for Development of Air Technology Components and Systems since end of the 60’s.

1999: LTG Aktiengesellschaft
Bundling of all Component and Development Activities as one of the Leading Suppliers for Air Conditioning Solutions in Comfort and Process Air Technology.

Numerous Patents and Innovations, e. g.

- 1968
- Linear Diffuser Coandaflow® D8
- 1972
- Tangential Fan VEE
- 1993
- VAV System VRE with map control
- 1994
- Chilled Beam cool wave® NFA
- 1996
- Model Drum Filter CDF (continuous self-cleaning)
- 1997
- Fahrwind Simulators
- 2001
- Facade Ventilation Unit Universal® FVS
- 2009
- Induction Unit for demand-controlled ventilation HF/V/A
- 2010/11
- Hotel Induction Unit HF suite
- 2012
- FV/Pulse
- 2013
LTG in Germany

Corporate office in Stuttgart

Manufacturing Site
LTG Process Air Technology

Air Technology Solutions for Humans and Products.
LTG Process Air Technology
Filtration Technology

For Clean Air.
For Recovering Valuable Materials.

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LTG Process Air Technology

Mobile Fahrtwind-Simulator

Tangential Fans
LTG Engineering Services

More security for your investment.
LTG Engineering Services

ISS International Space Station

LTG Reverberation Chamber

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ISS Laboratory Test
Air Flow w/o gravity
LTG Comfort Air Technology

Air-Water-Systems
- Induction Units, Active Chilled Beams
- Fan Coil Units
- Decentralized Ventilation Units

Air Diffusers
- Linear Diffusers
- Swirl Diffusers
- Transfer Air Devices
- Industrial / Custom Diffusers

Air Distribution
- Flow Rate Controllers
- Pressure Controllers
- Shut-off Dampers
- Silencers
High-quality control components with innovative flow technology.
Unsurpassed in control precision and energy efficiency.
Outstanding performance under demanding conditions.
Unsurpassed in comfort, acoustics and design.
LDB linear air diffusers with variable settings ensure effective ventilation and optimized air conditions.

- **Comfortable**: High induction air diffusers ensure rapid mixing of supply and room air to create comfortable thermal environments
- **Quiet**: Low-noise air distribution, aerodynamically optimized inner cylinder contours
- **Variable**: Limitless options for design, colour and surface appearance, can be perfectly integrated in all ceilings, thanks to a wide choice of border profiles
- **Flexible**: Can be adjusted to individual spatial conditions without impeding operation

**NEW**: LDB 12/M LTG System clean® made entirely of metal – narrow and unobtrusive, meeting highest architectural demands
Contaminants within the room air like dust, tobacco smoke, carpet abrasions, dust or oil vapor will deposit at the ceiling and around diffusers as a result of entrainment. The LTG System clean® prevents surface staining almost completely by providing a screen of clean supply air across the ceiling. Benefits: The costs of renovation and maintenance are considerably reduced.

The LTG System clean® is available for the products LDB, LDK-B and LDR
Best air conditioning solutions for any room situation.
Unique performance and efficiency, comfort and acoustics.
LTG induction units have been continually developed further since the first patent was registered by founder Dr. Albert Klein for an induction system in 1915.

The Induction Principle

Air flowing through a nozzle forms a free jet. It induces the surrounding air layer along at its edges and thus enlarges the flowing air volume. This „induction“ takes place within the induction device. A special construction entrains room air (secondary air) through a heat exchanger, where it is cooled or heated. Together with the fresh air (primary air) the supply air then returns to the room for a comfortable climate.
Power meets comfort – and the highest requirements

- **Reduced duct sizes** due to transport of cooling energy with water
- **Energy-efficient** with high cooling output and optimized fresh air quantity (suitable for LEED certified buildings)
- **Low-noise and maintenance-free**: high performance without secondary fan
- **2-/4-way version** for any desired room layout; integration of extract diffuser unit possible
- **Space-saving**: low installation height (e.g. HDF-N 160 mm)
Up-to-date induction technology – energy-efficient refurbishment

- **Easy**: 1:1 replacement during operation
- **Reduce energy costs**: demand-controlled ventilation with lowest primary pressures
- **High user response**: Supply air and cooling variable, extremely low-noise
- **Hard-wearing technology, low-maintenance**
- **Sustainable thanks to flexibility**: a unit model with various comfort stages, easily adjustable for all types of use in the building
Compact and powerful.
Flexible and efficient.

- Unit can be selected for **difficult installation situations**
- High **natural convection** for heating without primary air (e.g. heating operation at night with the ventilation off)
- **Simplified maintenance** via the floor grille and easy access to heat exchangers
- **With LTG System Design**: for a consistent look in all rooms, even with combination of different ventilation and air conditioning systems in the false floor (e.g. with VKB …)
Air-Water-Systems – Induction Technology

LTG SmartFlow Technology:

LTG induction units of the latest generation are energy-efficient and can be operated and demand controlled with LTG SmartFlow technology.

- Silent
- No additional fan needed in the unit
- Sustainable: long service life and low maintenance
- Low energy costs / variable ventilation
- High cooling and heating output
- Cooling / Heating and fresh air supply in one unit
FanPower – the Air Conditioning Classic

The principle: A fan conveys room air through a heat exchanger and cools or heats the room.

Fan Coil Units

LTG fan coil units use both radial and cross-flow fans to implement the best flow and acoustics for different installation situations. Flexible and high-performance.

LTG fan convectors with cross-flow technology are characterized by a particularly even and large-area flow through the heat exchanger. Low pressure loss and low noise level with high cooling or heating output.

The latest drive technology generation (EC-technology) also allows capacity modulation at the lowest electrical energy consumption.

Benefits:

- Best flow form, e.g. with displacement ventilation
- Demand-controlled air conditioning
- Low flow consumption of the fan by smart EC-technology
- Rapid response for cooling and heating output
- Fresh air supply possible
Always the best flow form for every application case: VFC.

- **Energy-efficient**: high cooling output with low power consumption
- **Highest comfort** by mixed/displacement ventilation
- **Maintenance-friendly** construction
- **Fresh-air connection** possible
- Suitable for **narrow and low sills**
Power meets comfort – and the highest requirements

- **Low-noise and efficient** thanks to energy-saving high-output fan (EC motor optional)
- **Compact size** for use even under limited room conditions (low version)
- **Low-maintenance** and extremely durable
- Excellent **robustness** paired with **elegance**
- **Perfect thermal shielding** due to direct air supply at the facade
Air-Water Systems – LTG Decentralized Ventilation Units

LTG **Decentral** – flexible and energy-efficient

Decentralized Ventilation Units offer unique flexibility in combination with high economic efficiency to architects and planners.

**Decentralized Ventilation**

All ventilation is provided locally. Both supply air and exhaust are guided across the façade and treated. An integrated highly efficient heat recovery minimizes the heat/cold loss and thus ensures low energy costs.

Without a central AHU, decentralized systems offer the only, highly efficient solution to renovate existing buildings in an energy-efficient manner. Local systems offer an innovative and energy-efficient means for individual, demand-controlled air conditioning for new construction projects as well.

**Benefits:**

- No central air conditioning unit or duct system
- Lower floor height for reduced construction costs and efficient space use
- High user acceptance by individual control
- High energy efficiency by demand-controlled ventilation with heat recovery