



PURE TECHNOLOGY.



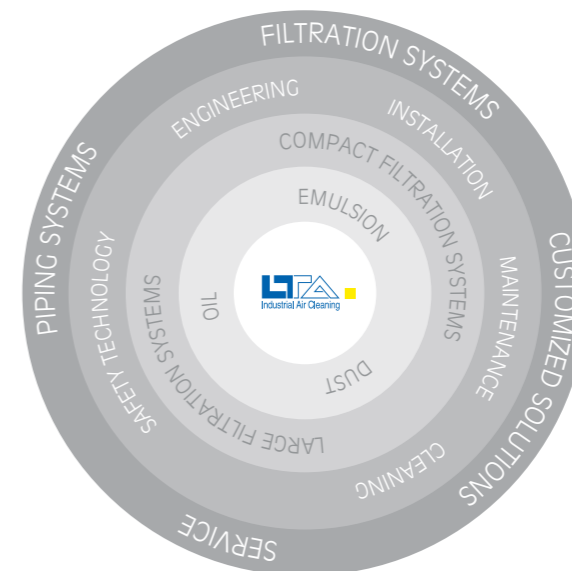
DEVELOPING THE FUTURE OF AIR FILTRATION.

Take the lead with
LTA Lufttechnik.

With LTA Lufttechnik at your side, you can solve practically any filtration task. Our trained experts carry out research, development and production – with over 35 years of experience and in-depth understanding of customer requirements. This results in technological milestones for companies and groups around the world.

Why not turn our advanced knowledge into a lasting benefit for yourself? We will support you throughout the entire product life cycle, from advice and planning to installation and commissioning, through to professional services.

Breathe easy with LTA Lufttechnik.



CONQUERING NEW HORIZONS? THAT'S WHAT WE DO BEST.

LTA Lufttechnik has been shaping progress since 1980.

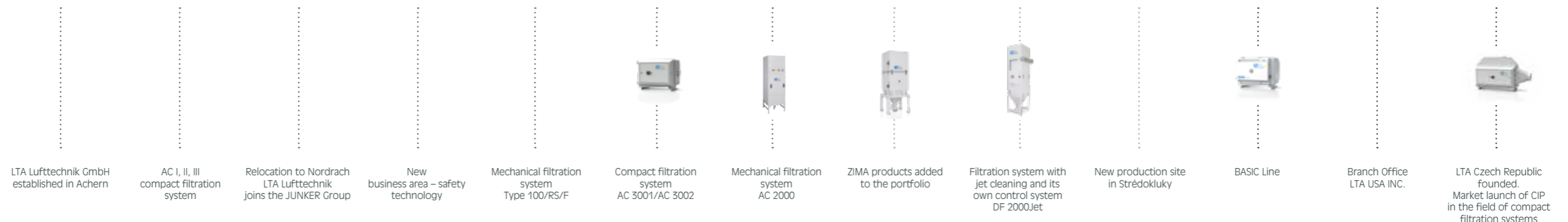
Progress is what happens when you think out of the box. At LTA Lufttechnik, this innovative spirit is in our DNA. Right from the very beginning, back in 1980 when the business was founded under the name "LuftTechnik Achern", we questioned conventional filtration solutions and developed innovative approaches from our own production hall. And we succeeded. The compact filtration systems AC I, II, and III made their mark in 1983.

LTA Lufttechnik also explores new approaches when it comes to safety technology, thereby paving the way for technologies which are now used in large parts of the industry. The 2000s brought highlights such as the new, compact and mechanical filtration systems and the addition of the Zima products to the LTA product portfolio. Later, electrostatic and mechanical filtration systems as large modules, and the development of automatically cleanable electrostatic filtration systems attracted attention across the industry.

In 2010, our anniversary year, the DF 2000 Jet filtration system with jet cleaning and its own control system made its debut. With numerous innovations and the opening of new sites in the Czech Republic and USA, LTA Lufttechnik continues resolutely on its path to becoming a global full-range supplier.



1980 1983 1995 1998 2000 2002 2006 2007 2010 2012 2014 2016 2017



NOTHING GETS PAST THIS LEVEL OF QUALITY.

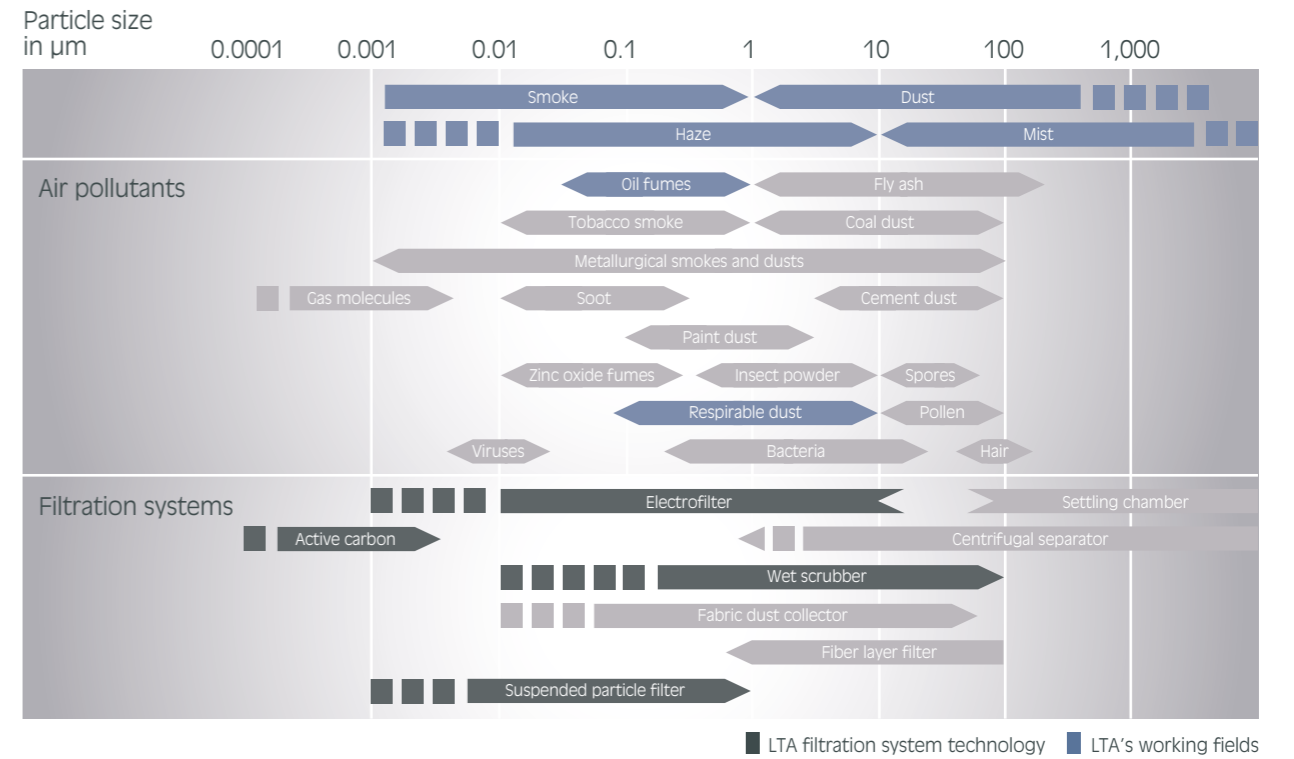
Solve any filtration task with LTA Lufttechnik.

Not only do intelligent filtration systems reliably remove pollutants from the air, they allow you to breathe easy when it comes to your business by lowering operating costs, minimizing downtimes, increasing availability, and optimizing personnel deployment. This is why LTA Lufttechnik takes a holistic approach to filtration.

As a global full-range supplier, we produce solutions for compact filtration systems and plan and set up filtration systems for large extraction systems. We specialize in emulsion and oil mist, as well as dust and chip extraction, for particles ranging in size from 0.001 to 100 µm. Utilizing our expertise in the field of piping systems, flow simulations, safety technology and turn-key solutions, we create a whole range of added value for our customers across the entire life cycle of a system.



High-performance safety technology protects lives and investments. LTA Lufttechnik develops and supplies corresponding complete solutions, from the air shut-off valve and fire alarm control panels to extensive fire extinguisher systems. These have already proven themselves worldwide in over 3000 machine tools.



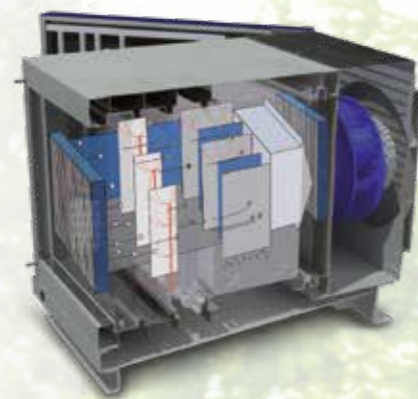
COMPACT FILTRATION SYSTEMS FOR MEASURABLY MORE EFFICIENT PROCESSES.

The filters from LTA Lufttechnik demonstrate their superiority day in, day out.

Modular LTA compact filtration systems combine numerous strengths in a small space. They impress with a high filtration efficiency (> 99%) while simplifying handling and maintenance. Thanks to their adjustable high-voltage generators, they can be used universally and they fulfill the ERP guidelines as energy-efficient filtration systems. With versatile accessories they can be optimally adapted to the specific application in question.

Electrostatic compact filtration systems operate based on the physical principle of deflection of electrically charged particles in an electric field. The medium that is to be filtered passes through the following process steps: pre-filter, ionization, collection and precipitation. The charged particles are neutralized in the downstream filter. The purified air can then be released outside.

Mechanical filtration systems guide the contaminated air through a porous medium in which the dispersed solid or aerosol particles are restrained using different mechanisms.

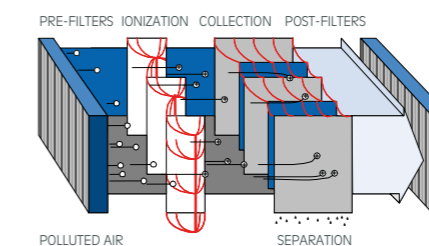


Electrostatic operating principle

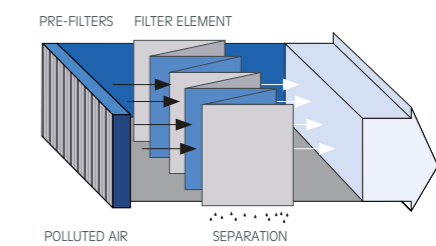
COMPACT FILTRATION SYSTEMS: AREAS OF APPLICATION

- . Extraction and cleaning of oil mist and emulsion mist at machine tools
- . Collection and separation of solder fumes, welding fumes and oil fumes
- . Special applications, e.g., extraction of plastic, silicone and releasing agent vapors
- . Explosion and fire protection on machines with oil-cooled tools

ELECTROSTATIC



MECHANICAL



ONE OF OUR KEY ELEMENTS: INNOVATION.

Turn LTA Lufttechnik's progress
into your long-term success.

Filtration systems tie up capital and have a pay-back period of several years. Which makes it all the more important to opt for future-proof technology. In this regard, LTA Lufttechnik is considered to be a safe bet for market-based development. This is because we actively shape industry progress through our own research and groundbreaking product developments.

One of our current highlights is the premiere of a revolutionary electrostatic filtration system for the extraction of oil and emulsion mist. This LTA innovation is the first self-cleaning compact filtration system on the market. It enables the cooling lubricant to be recovered, delivers a higher filtration efficiency and does not produce any special waste.

This innovation pays off directly for industrial enterprises in the form of cost savings, waste prevention and greater process reliability, for example. Operators are supported by forward-looking LTA developments to ensure they remain competitive over the long term. And they can adapt to new requirements without pressure to invest.



WORLD PREMIERE OF THE AC 3002 CIP:
THE FIRST SELF-CLEANING ELECTROSTATIC
COMPACT FILTRATION SYSTEM

- . Future-oriented technology for greater productivity and efficiency during precipitation of air-polluting substances
- . Ensures high filtration efficiency and operational reliability over the long-term
- . Low energy consumption due to filter elements with almost no pressure loss
- . Low maintenance, process reliability, high-quality
- . Reliable technology, awarded the "BEST OF" 2016 industry prize
- . Filtration system has a short pay-back period

THE ADVANTAGES ARE HUGE: OUR LARGE FILTRATION SYSTEMS.

Now you can overcome even complex tasks
with LTA Lufttechnik.

From the group and central extraction of oil and emulsion mist on machines or machining centers through to entire factory halls: LTA filtration solutions provide purity whatever the size. A joint, robust large filtration system for all machines with cooling lubricants is used – as a single-stage or double-stage version, with an air throughput rate of up to 28,000 m³/h (16,480 cfm) and energy-saving, flow-optimized design. Thanks to the flexible, modular construction, different extraction volumes can be achieved.

This provides you with a range of economic advantages: maintenance can be carried out at a central location, thereby reducing costs. Options such as heat recovery, CIP (Cleaning in Place), redundant operation, separate fan modules, efficient operation by means of air throttle valves and pressure sensors as well as a second filtration stage for the separation of particles greater than $< 1 \mu\text{m}$ all optimize your costing and reduce the life cycle costs.



Standard version



Version with CIP and
cleaning system



Cleaning system

LTA LARGE FILTRATION SYSTEMS IN DETAIL

- . AC 8000 – AC 24000 filtration systems
- . Large extraction quantities thanks to modularity
- . Robust, modular design
- . The perfect solution for group and central extraction of oil and emulsion mist for machines and machining centers or entire factory halls
- . Single-stage and multi-stage electrostatic cleaning possible
- . Can be equipped with suitable pre-filters for cleaning coarse contaminants and for a longer service life
- . The pre-filters are integrated in the housing, and the filter inserts can be fully cleaned
- . The filter cells have a universal design
- . Minimum energy consumption thanks to flow-optimized design
- . Very good filtration efficiency (> 99%). The basic module is supplied with 230 V. Together with a fan unit, the power is supplied at 400 Volt

A COMPLETE RANGE FOR THE CLEANEST RESULTS.
















The LTA Lufttechnik portfolio for all filtration tasks.

Only filtration that is 100% reliable can ensure that production processes run smoothly. Many companies value this predictability, which is why they work with solutions from LTA. Our wide-ranging portfolio makes use of the best technology available and nothing less. It delivers reliable results and fulfills all applicable industry requirements without compromise.

LTA takes care of the necessary prerequisites itself, in the company's own LTA Technology Center and under real-life conditions. Intensive long-term and basic tests are used to systematically optimize the systems. In doing so, we go much further than the necessary standards. Because our standard for success is much higher: 100% customer satisfaction.

Modularity



| FILTRATION SYSTEMS | COMPACT | | | | | | | | | | LARGE | | | | | DUST | | | |
|---|--|-------------------------------|--|------------------|--|---|-------------------------------------|--|--|--|--|--|--|--|---|--|--|--|--|
|  |  | |  | |  |  | |  | |  |  | |  |  |  |  |  |  |  |
| SERIES | AC 500 | | AC 1000 | | AC 2000 | AC 3000 | | BASIC LINE | | AC 8000 | AC 12000 | AC 16000 | AC 20000 | AC 24000 | DF 60 TO DF 200** | DF 90 JET | DF 200 TO 600 JET | DF 2000 JET | |
| | 230 Volt | 400 Volt | 230 Volt | 400 Volt | 400 Volt | 230 Volt | 400 Volt | 230 Volt | 400 Volt | 230 Volt | 230 Volt | 230 Volt | 230 Volt | 230 Volt | 400 Volt | 230 Volt | 400 Volt | 400 Volt | |
| FILTRATION PRINCIPLE | E/M | E/M | E | E | M | E/M | E/M | E/M | E/M | E | E | E | E | E | | | | | |
| DUST | | | | | | | | | | | | | | | ✓ (Pocket) | ✓ (Cartridge) | ✓ (Cartridge) | ✓ (Cartridge) | |
| MODULARITY | | | | | ✓ | | ✓ | | | ✓ | ✓ | ✓ | | | | | | ✓ | |
| EXTENDED FILTER STAGE | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | |
| SUCTION CAPACITY IN M³/H | 700 – 800 | 800 | 800 | 800 | 2,500 – 25,000 | 1,000 – 3,600 | 1,200 – 7,200 | 1,000 – 1,200 | 1,000 – 1,200 | | | | | | 600 – 2,000 | 750 | 2,000 – 6,000 | 2,000 – 8,000 | |
| SUCTION CAPACITY IN CFM | 412 – 470 | 470 | 470 | 470 | 1,471 – 14,714 | 589 – 2,119 | 706 – 4,238 | 589 – 706 | 589 – 706 | | | | | | 353 – 1,177 | 441 | 1,177 – 3,531 | 1,177 – 4,709 | |
| FAN OUTPUT IN M³/H (FREE BLOWING) | 1,315 * 1,200 | 1,950 | 1,315 | 1,950 | 4,500 – 75,000 | 2,400 – 7,200 | 2,400 – 19,200 | 2,400 | 3,200 | | | | | | 800 – 2,600 | 1,100 | 2,600 – 8,000 | 6,500 – 24,300 | |
| FAN OUTPUT IN CFM (FREE BLOWING) | 774 * 706 | 1,147 | 774 | 1,147 | 2,648 – 44,143 | 1,413 – 4,238 | 1,413 – 11,301 | 1,413 | 1,883 | | | | | | 471 – 1,530 | 647 | 1,530 – 4,709 | 3,826 – 14,302 | |
| VOLUME FLOW | | | | | | | | | | 8,000 – 12,000 m³/h 4,709 – 7,063 cfm | 12,000 – 16,000 m³/h 7,063 – 9,417 cfm | 16,000 – 20,000 m³/h 9,417 – 11,772 cfm | 20,000 – 24,000 m³/h 11,772 – 14,126 cfm | 24,000 – 28,000 m³/h 14,126 – 16,480 cfm | | | | | |
| ELECTRICAL CONNECTION IN V, HZ, KVA *** | 230, 50-60, 0.6 *230, 50-60, 0.18 | 400, 50, 0.45 | 230, 50-60, 0.6 | 400, 50, 0.45 | 400, 50, 2.35 | 230, 50-60, 0.78 * 230, 50-60, 0.63 | 400, 50-60, 1.23 * 400, 50-60, 1.38 | 230, 50-60, 0.78 *230, 50-60, 0.63 | 400, 50-60, 1.23 *400, 50-60, 1.38-1.8 | 230, 50 – 60, 0.5 | 230, 50 – 60, 0.5 | 230, 50 – 60, 1.0 | 230, 50 – 60, 1.0 | 230, 50 – 60, 1.0 | 400-460,50-60, 1.35 | 230,50, 1.1 | 400-460, 50-60, 2.2 | 400, 50, 5.9 | |
| DIMENSIONS (LxWxH) *** | 500x500x610 mm 20x20x24 inch | | 845x595x310 mm 33x23x12 inch | | 700x700x2000 mm 28x28x79 inch | 800x625x610 mm 31x25x24 inch | | 800x625x610 mm 31x25x24 inch | | 650x1,100x2,300 mm 26x43x91 inch | 650x1,580x2,300 mm 25x62x91 inch | 650x2,200x2,300 mm 25x106x91 inch | 650x2,695x2,300 mm 25x124x91 inch | 650x3,160x2,300 mm 25x124x91 inch | manual cleaning device: 650x550x1205 mm 25x22x47 inch pneumatic cleaning device: 850x550x1205 mm 33x22x47 inch | 1,050x750x2,270 mm 41x30x89 inch | 850x750x2,920 mm 33x30x115 inch | 980x930x2,970 mm 39x37x117 inch | |
| WEIGHT (APPROX.) *** | 50 (*42) kg 110 (*95) lbs | 53 (*48) kg 116 (*106) lbs | 68 kg 150 lbs | 71 kg 156 lbs | 295 kg 650 lbs | 100 (*80) kg 220 (*176) lbs | 110 (*80) kg 243 (*176) lbs | 85 (*75) kg 187 (*165) lbs | 90 (*80) kg 198 (*176) lbs | 450 kg 992 lbs | 550 kg 1,213 lbs | 900 kg 1,984 lbs | 1,000 kg 2,205 lbs | 1,100 kg 2,425 lbs | 88 kg 194 lbs | 100 kg 220 lbs | 260 kg 573 lbs | 250 kg 551 lbs | |
| SWITCH CABINET ACCORDING TO UL 508 A | ✓ | | ✓ | | ✓ | ✓ | | ✓ | | ✓ | ✓ | | | | | | | ✓ | |

E = electrostatical
M = mechanical

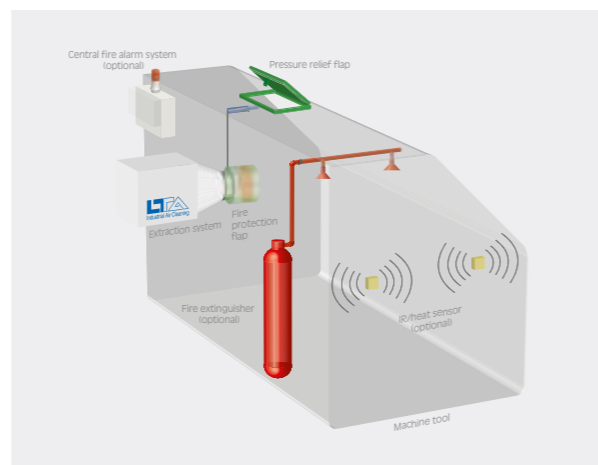
* Mechanical filtration system
** Manual or pneumatic cleaning
*** The connection values, dimensions and weights given are only for the single-stage filtration system. For the filtration systems for dust, the values for the smallest unit are listed. Further details can be found on a separate data sheet.



EVERYTHING THAT MAKES FOR A GREAT PARTNERSHIP AND LOWERS COSTS. FROM A SINGLE SOURCE.

- . Advice and project planning for filtration solutions
- . Planning, engineering, site supervision, training, commissioning
- . Flow simulation and safety technology
- . Measurement
- . 24/7 follow-the-sun hotline
- . Maintenance, repairs and cleaning
- . General overhaul
- . Worldwide spare parts service
- . Service agreement

SAFETY TECHNOLOGY



ACHIEVE YOUR GOALS MORE QUICKLY WITH LTA LUFTECHNIK.

We're at your side with our comprehensive expertise.

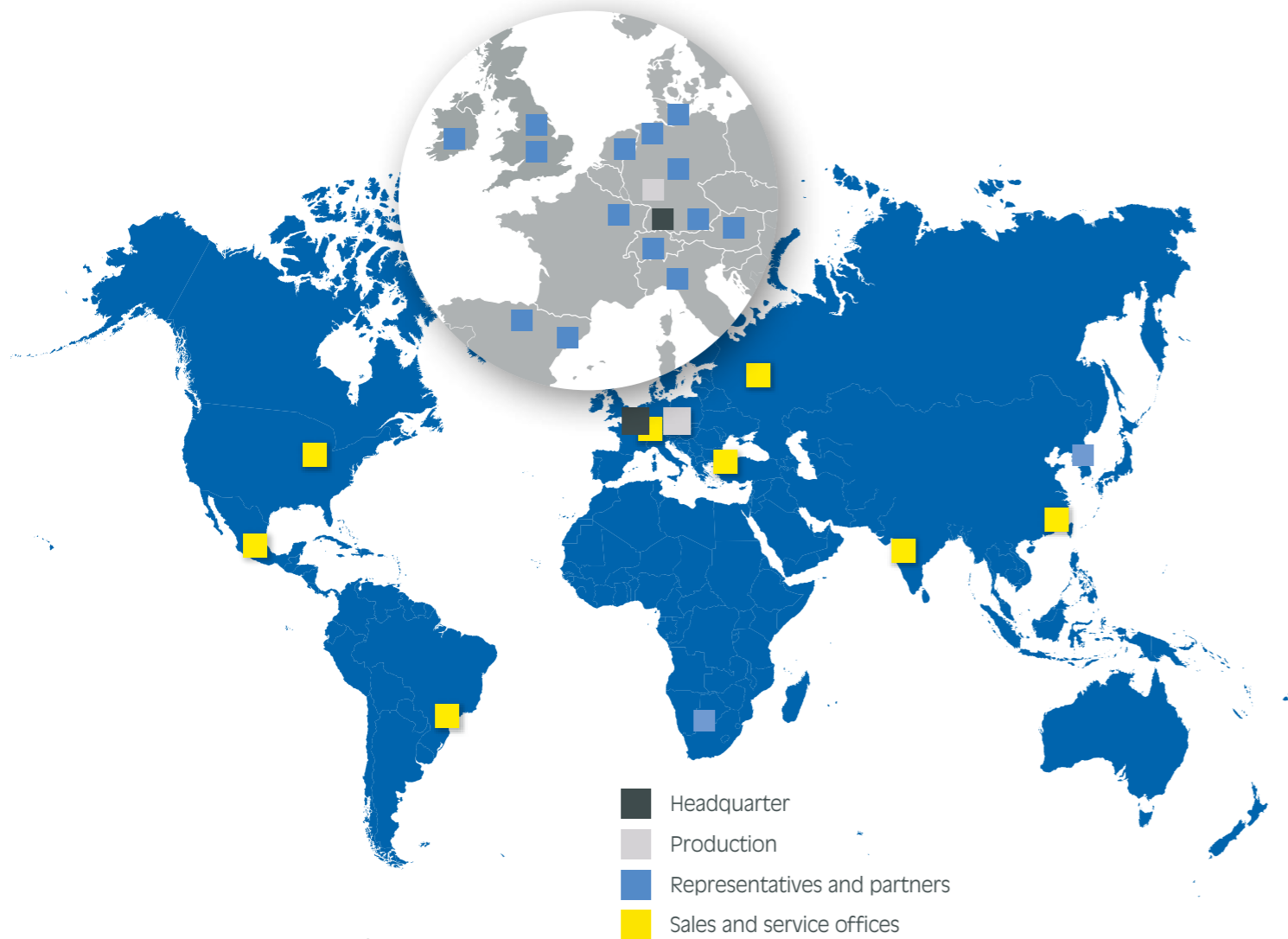
Time, cost and quality pressure continues to increase in industry. If you want to meet your profit targets, you need forward-looking filtration solutions – solutions that combine efficient performance, reliable investment and careful use of resources. As a consultant, filtration expert LTA has both the vision and the experience needed to help you make well-founded decisions.

Our advice on how to achieve greater efficiency will help you lower CO₂ emissions, reduce maintenance expenditure and identify potential cost savings. Benefit from the expert advice of LTA Lufttechnik, your solution partner. Let us help you increase your efficiency and productivity. And turn our extensive experience into your growth.

To keep development costs down and ensure optimal project planning of your filtration system, LTA uses special software for simulating flow and thermal characteristics in filtration systems. With this precision tool, the entire production output can be predicted and structural changes can be planned, even before the system is produced. This allows us to create your filtration solution more quickly, with greater flexibility and without expensive prototype construction.

FLOW SIMULATION





18 | 19

TRUE PROFESSIONALS ARE ALWAYS WITHIN REACH.

Your professional support around the world.

At LTA, we pride ourselves on working closely with our customers in the development of filtration solutions that precisely match actual customer requirements, and in the geographical sense. Our service network spans 9 countries worldwide, so our customers never need to wait longer than absolutely necessary for professional service.

Dedicated employees at all our sites provide professional support on all matters relating to industrial filtration. We ensure optimum availability of your filtration systems and see ourselves as the key to your productivity. Alongside our technical expertise, customers value our excellent availability and constructive collaboration.





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