



PURE TECHNOLOGY.

## **ELECTROSTATIC FILTRATION SYSTEMS**

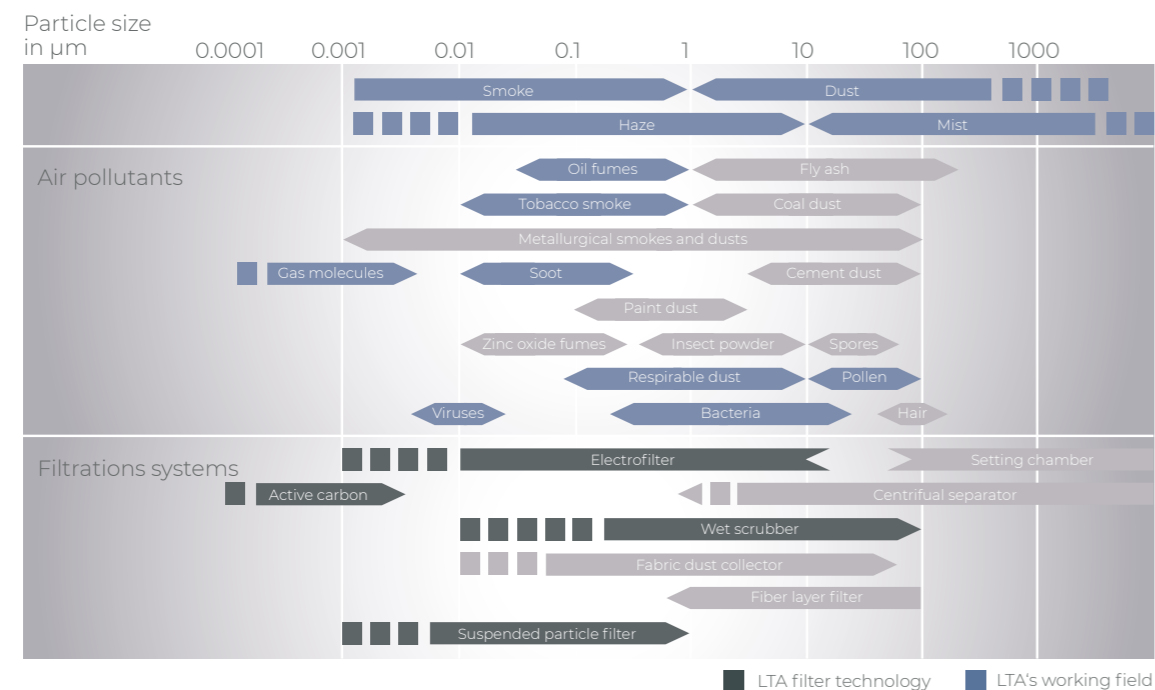
For coolants  
**as mass or central extraction**  
E 800 - E 1200 - E 1600 - E 2000 - E 2400



## LTA LUFTECHNIK. DEVELOPING THE FUTURE OF AIR FILTRATION.

With LTA Lufttechnik at your side, you can solve practically any filtration task. Our trained experts carry out research, development and production – with over 40 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.



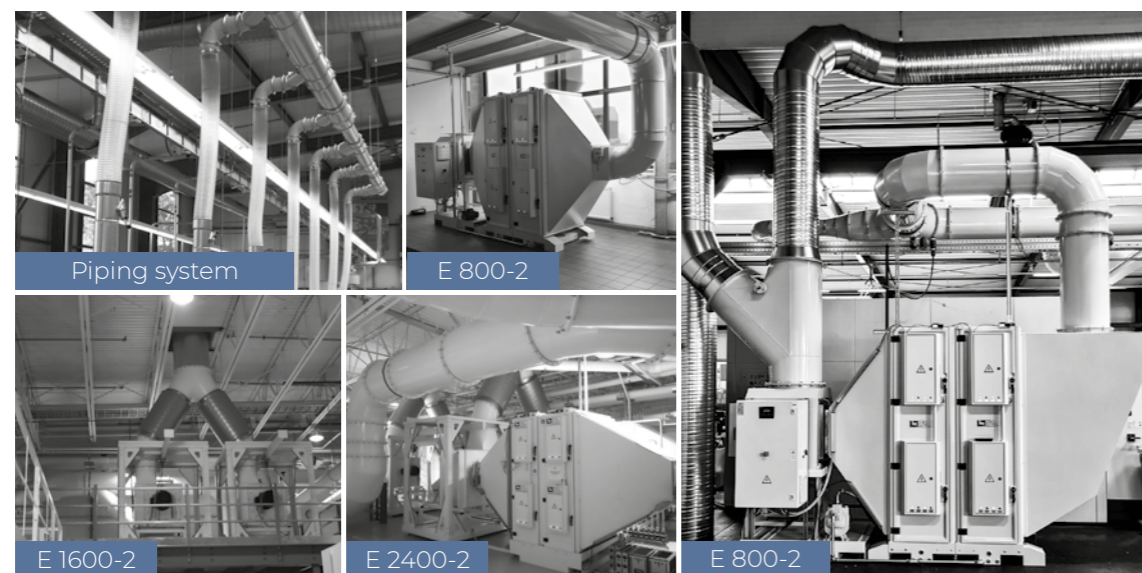
As a global full-range supplier, we produce solutions for compact filtration systems and plan and set up filtration systems for large extraction systems. We specialize in emulsion and oil mist, as well as dust and chip extraction, for particles ranging in size from 0.001 to 100  $\mu\text{m}$ . Utilizing 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.

### OUR FILTRATION SYSTEMS

<p><b>ELECTROSTATIC FILTRATION SYSTEMS FOR COOLANTS</b></p> <p>As single position or mass extraction</p>	<p><b>MECHANICAL FILTRATION SYSTEMS FOR COOLANTS</b></p> <p>As single position or mass extraction</p>	<p><b>MECHANICAL FILTRATION SYSTEMS FOR DUST AND SMOKE</b></p> <p>As single position, mass or central extraction</p>	<p><b>AIR PURIFIER VIRUS CLEANER VC 60</b></p> <p>Against viruses, bacteria, pollen and other germs</p>
<p><b>ELECTROSTATIC FILTRATION SYSTEMS FOR COOLANTS</b></p> <p>As mass or central extraction</p>	<p><b>MECHANICAL FILTRATION SYSTEMS FOR COOLANTS</b></p> <p>As mass or central extraction</p>		

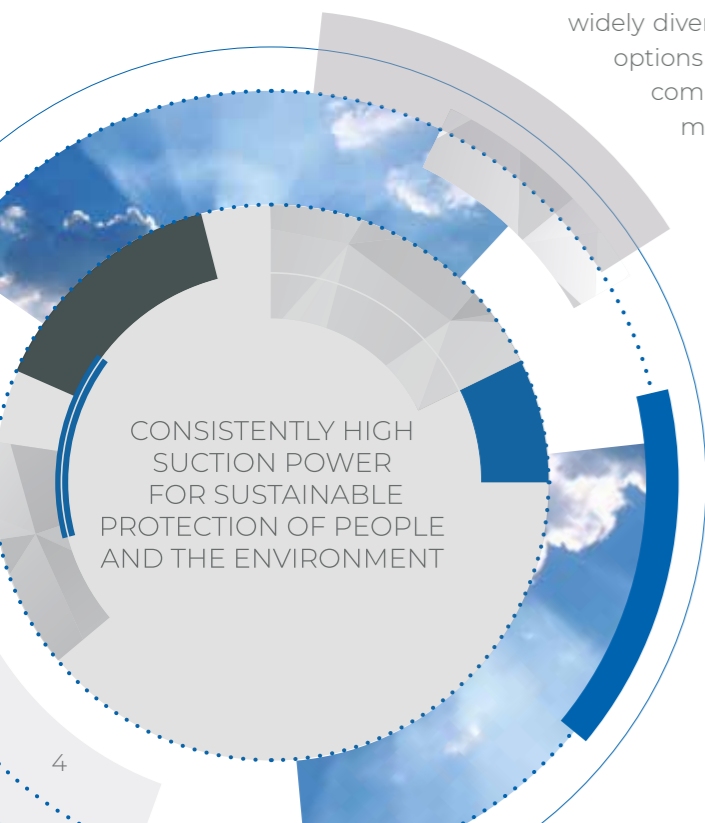
# ELECTROSTATIC FILTRATION SYSTEMS

For coolants as mass or central extraction



Electrostatic filtration systems for oil and emulsion mist are the ideal solution to sustainable production in industry and trade. The prefilters and main filters are completely washable and therefore reusable. As extremely flow-optimized solutions, the electrostatic filters for coolant mist stand for a long service life, as well as long-running and consistently high performance. All applicable industrial and authority requirements are fulfilled without compromise.

The E 800 to E 2400 filtration systems are suitable for the extraction of several machines or machining centers up to the entire production hall. The widely diversified range with numerous thought-out variants and options offers the right filtration system for every application. A compact design, paired with easy installation and minimum maintenance effort, makes the filtration systems of the LTA the ideal companion for sustainable protection of people and the environment.



Our products and their efficiency have been **tested and confirmed by two independent institutes**. By the practiced quality system, **we continuously guarantee a high and consistent quality** of our systems. The **safety-related components** were also approved by the **IBExU** and have proven themselves on over 3000 machine tools worldwide.

## EXTRACTION CAPACITY

From 8.000 to 36.000 m<sup>3</sup>/h

## COLLECTION EFFICIENCY

up to 99,8 %

## AREAS OF APPLICATION

- Removal of oil and emulsion mist  
e.g. in machine tools and processing centers
- Applications with the minimum amount of lubrication
- Special applications such as extraction of plastic, silicone and separating agent vapors
- Collection and removal of soldering, welding and oil fumes

## THE ADVANTAGES FOR YOU

- Protection of employees against particulate matter hazardous to health
- Low maintenance costs due to cleanable, reusable filter elements
- Efficient blower for optimal energy balance
- Continuously adjustable for every application
- Flow-optimized and filter elements without loss of pressure
- Option: Cleaning in Place (CIP) system available
- Redundant operation
- Central maintenance point
- Filtration solutions from a single source: Consultation and project planning, flow simulation and heat recovery, commissioning and service
- Explosion and fire protection at machines with oil-cooled tools
- Compliance with all industrial and authority standards
- Certified according to ISO 9001 and ISO 14001



### E 800-1

Extraction capacity: 8.000 - 10.000 m<sup>3</sup>/h  
Dimensions (LxWxH): 2.570 x 1.470 x 2.360 mm  
Weight: From 880 kg  
Operating voltage: 400 V



### E 800-2

Extraction capacity: 8.000 - 12.000 m<sup>3</sup>/h  
Dimensions (LxWxH): 3.220 x 1.470 x 2.360 mm  
Weight: From 1.350 kg  
Operating voltage: 400 V



### E 1200-1

Extraction capacity: 12.000 - 15.000 m<sup>3</sup>/h  
Dimensions (LxWxH): 3.030 x 1.880 x 2.360 mm  
Weight: From 1.200 kg  
Operating voltage: 400 V



### E 1200-2

Extraction capacity: 12.000 - 18.000 m<sup>3</sup>/h  
Dimensions (LxWxH): 3.680 x 1.880 x 2.360 mm  
Weight: From 1.760 kg  
Operating voltage: 400 V



### E 1600-1

Extraction capacity: 16.000 - 20.000 m<sup>3</sup>/h  
Dimensions (LxWxH): 3.020 x 2.230 x 2.380 mm  
Weight: From 1.635 kg  
Operating voltage: 400 V



### E 1600-2

Extraction capacity: 16.000 - 24.000 m<sup>3</sup>/h  
Dimensions (LxWxH): 3.670 x 2.230 x 2.380 mm  
Weight: From 2.610 kg  
Operating voltage: 400 V



### E 2000-1

Extraction capacity: 20.000 - 25.000 m<sup>3</sup>/h  
Dimensions (LxWxH): 3.020 x 2.700 x 2.380 mm  
Weight: From 1.890 kg  
Operating voltage: 400 V



### E 2000-2

Extraction capacity: 20.000 - 30.000 m<sup>3</sup>/h  
Dimensions (LxWxH): 3.670 x 2.700 x 2.380 mm  
Weight: From 2.960 kg  
Operating voltage: 400 V



### E 2400-1

Extraction capacity: 24.000 - 30.000 m<sup>3</sup>/h  
Dimensions (LxWxH): 3.770 x 3.160 x 2.380 mm  
Weight: From 2.010 kg  
Operating voltage: 400 V



### E 2400-2

Extraction capacity: 24.000 - 36.000 m<sup>3</sup>/h  
Dimensions (LxWxH): 4.420 x 3.160 x 2.380 mm  
Weight: From 3.175 kg  
Operating voltage: 400 V

## VARIANTS

### STANDARD

The E 800 - E 2400 filtration systems guarantee long-lasting and economical use in a wide range of applications. The filtration systems are already equipped with a programmable logic controller and a frequency converter for fan control as standard. Thanks to ideal flow conditions and variable equipment, longer service lives for the filter elements can be guaranteed, thus reducing follow-up costs. With additional options for customer-specific designs, e.g. country-specific regulations (e.g. CSA/UL 508 A), customer-specific regulations (automotive), special voltage and sensor technology, the filtration systems offer a wide range of variability.

### SELF-CLEANING

The E 800 - E 2400 filtration systems are optionally available as a Cleaning in Place (CIP) system. The automatic cleaning system ensures a consistently high degree of separation and constant operational reliability with minimum maintenance. The cleaning system can either clean with the cooling lubricant used in the machine or, alternatively, a special cleaning oil can be used, which is permanently treated thanks to a cleaning centrifuge and can be operated in a cycle.

## SELECTION CRITERIA

m<sup>3</sup>/h

### WHAT EXTRACTION CAPACITY?

With coolants, a rate of 250 times per m<sup>3</sup> and h is assumed as a guide value for air replacement. As an example, there is – for a processing space in the machine of 32 m<sup>3</sup> and automated charging – a required effective extraction capacity of approx. 8.000 m<sup>3</sup>/h. In this example, therefore, a filtration system from the E 800 series is required.

1/2

### ONE OR TWO STAGES?

Single-stage air filters (e.g. E 800-1) can be used for coolant pressures of up to 40 bar. For pressures above 40 bar, the two-stage variants (e.g. E 800-2) of the electrostatic filtration systems are recommended for industry and trade.

## FUNCTIONALITY

### 1 TRANSITION PIECE

Depending on the application and desired positioning of the filtration system, the transition piece at the air inlet can be mounted in almost any way.

### 2 PREFILTER

The contaminated air is suctioned via prefilters. This early stage removes coarse particles. It protects the following filter elements from foreign bodies. The prefilters are adapted to the respective application.

### 3 IONIZER

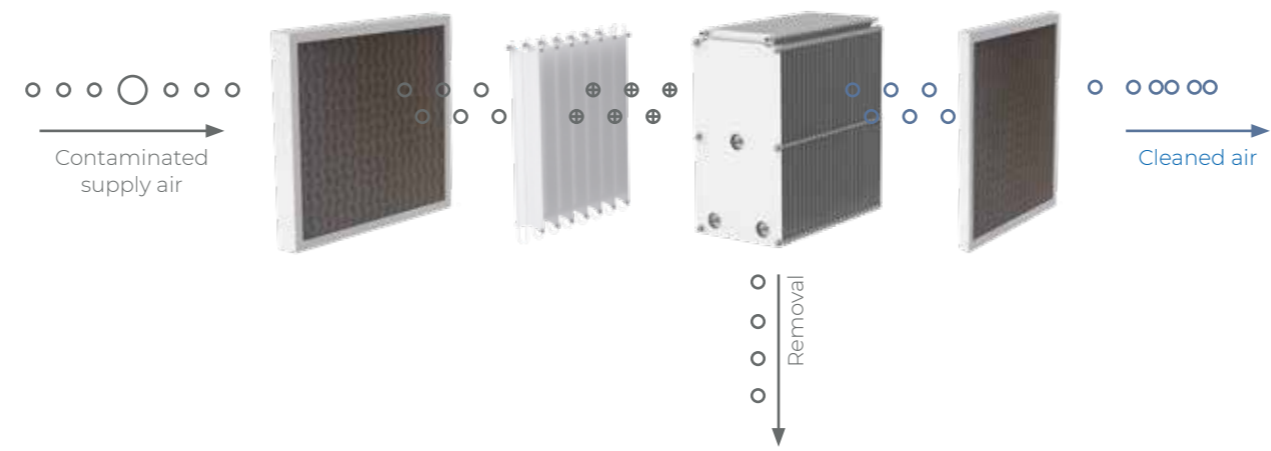
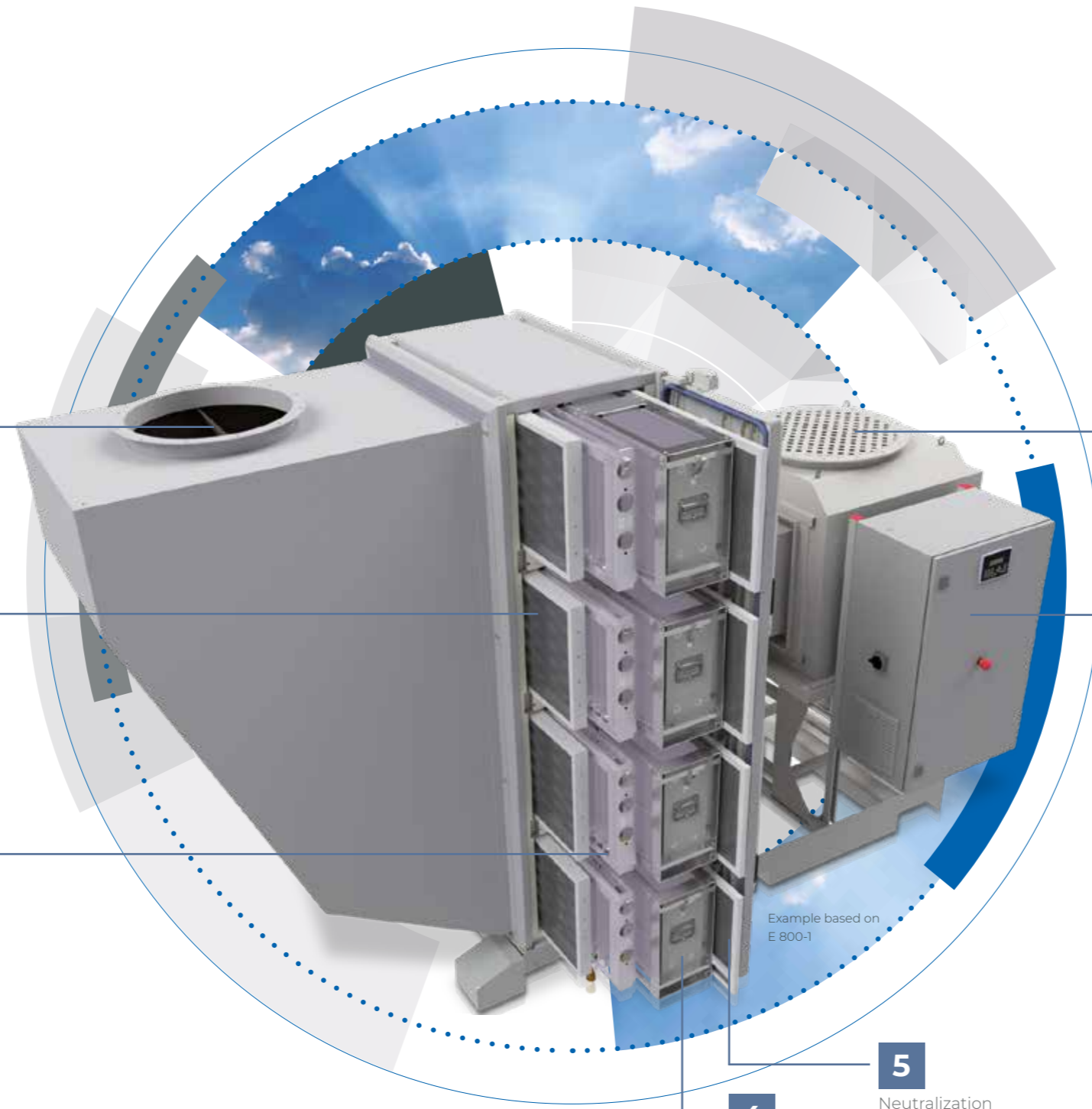
In the ionizer, the arriving, neutral particulate matter is given a positive charge by means of an electric field and thereby prepared for removal in the collector.

### 4 COLLECTOR

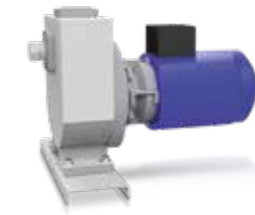
In the collector, the particles that have been given a positive charge in the ionizer are diverted and removed via collector plates (negative charge). The oil or the emulsion is collected and fed back into the coolant circuit of the machine tool.

### 5 NEUTRALIZATION FILTER

The electrical charge of the air is neutralized.



**COLOR SELECTION**  
The LTA standard paint is RAL 7035, light gray.  
Other colors/paints are always possible.

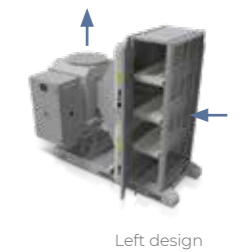


**PUMP**  
optional.  
(For conveying the separated cooling lubricant.)

**7 BLOWER**  
An energy-efficient blower sucks the air current over the connection opening through the air filter and conveys the cleaned air out of the housing.

**8 SWITCHBOARD**  
Switch cabinet including programmable logic controller (PLC) and frequency inverter.

**MAINTENANCE DOOR**  
The maintenance door can optionally be installed on the left or right side of the filtration system, in order to enable easy access to filter inserts and the control system independently of the positioning of the system.



**INTERFACES**  
LTA filtration systems are compatible with all standard machine control systems and regulations:

- Country-specific regulations (e.g. CSA/UL 508 A)
- Customer-specific regulations (automotive)
- Special voltage (110 V–480 V 50/60 Hz)

## LTA LUFTECHNIK. 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 7 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.

### 24/7/365 LTA SERVICE

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