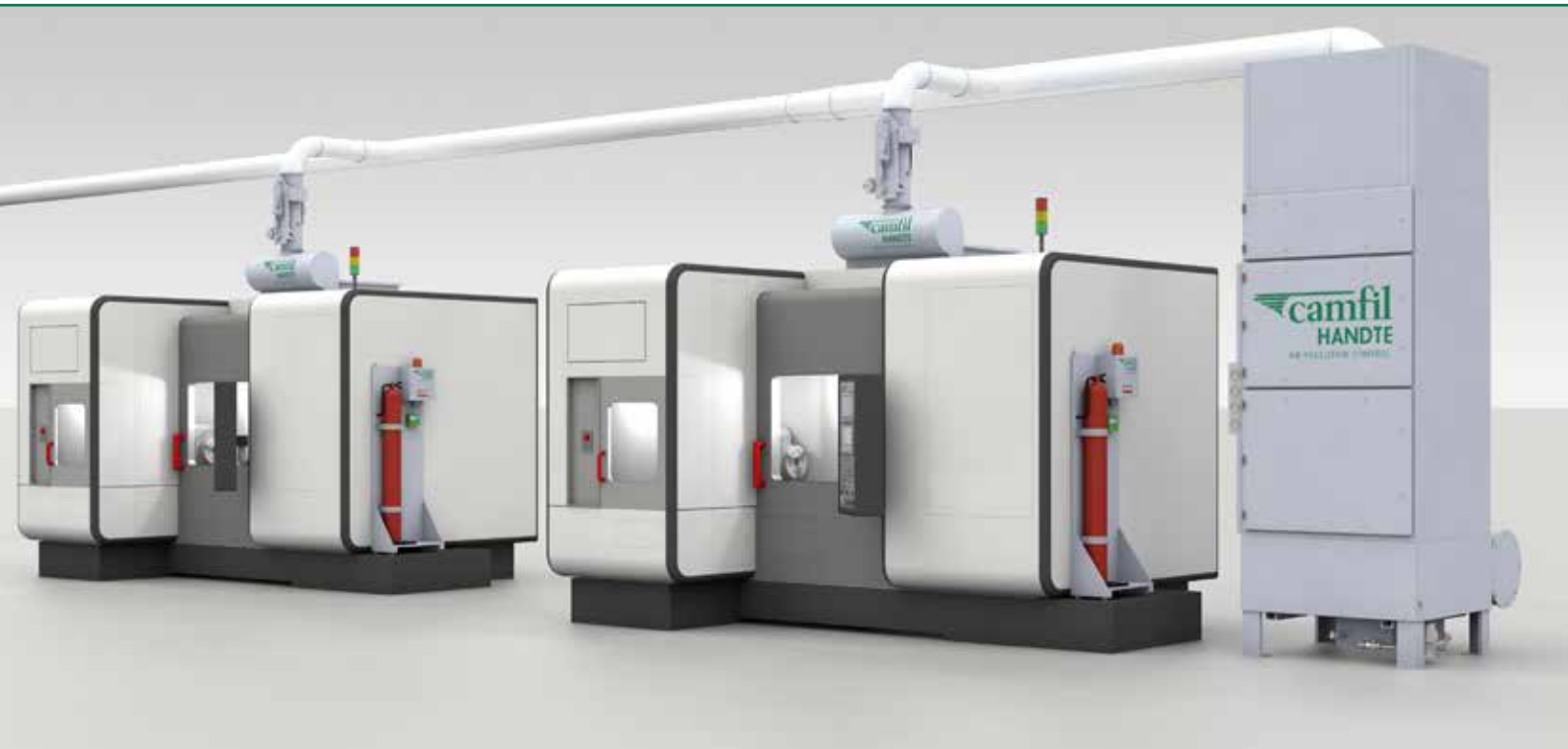


The oil mist separator for extremely efficient separation of ultra-fine aerosols and fumes.



Modular, flexible – for efficient extraction in high-performance machining with cooling lubricants.

If you are looking for a system that is not only reliable & efficient but also highly flexible:

The new Handte Oil Expert is just what you need.

With its extremely clear-cut design and convincing results, the separation system leaves nothing to be desired: Premium separation efficiency under most challenging conditions! Other key benefits of the product series include:

Progressive filtration design » for highest separation efficiency.

The progressive design boasting ascending filter classes with coarse separator mesh for high contamination, the generic Camfil Handte APC CoaPack diffusion filter stages provided as a preliminary filter, fine filter, and the optional downstream post-filter stage make it possible to configure the separator for simple applications or for highly complex requirements such as clean air recirculation, also for ultra-fine aerosols and fumes generated in the course of high-performance machining.

Modular design » for flexible configuration.

The compact modular design provides for easy, efficient adaptation of the Handte Oil Expert to the customer's individual requirements and installation situation. It is available in four standardized basic modules with different air flows which can be combined in a large central system. State-of-the-art technology allows for flexible adjustment to production conversions or extensions.

Innovative new filter medium » for a long lifetime.

The particular structure of the generic Camfil Handte APC CoaPack filter material combines premium separation performance with self-cleaning features via optimum drainage of the separated cooling lubricant. The excellent separation performance ensures extremely long lifetimes of the optional downstream absolute filter stage.

Very easy filter change » for simple maintenance without getting your hands dirty.

The operation of the Handte Oil Expert is practically maintenance-free. Filter changes are clean and easy and require no tools. The closed filter cassettes can be removed access-free to avoid any direct contact with the oil-soiled filter material.



The premium separator for machining using oil. And generally for all types of fumes!

Attributable to the increasing productivity in modern manufacturing, the energy input is growing constantly, in particular with machining processes where cooling lubricants are used. As a logical consequence, much higher requirements are made in the separation of ultra-fine aerosols and fumes. To meet these, our Handte Oil Expert series provides for optimum results even under the most challenging conditions.

The Handte Oil Expert is suitable for use with:

turning, drilling, milling, roughing, grinding, broaching, honing, rolling, deep-drawing, pressing, etc.
in connection with cooling lubricants (CLs) or separation agents.



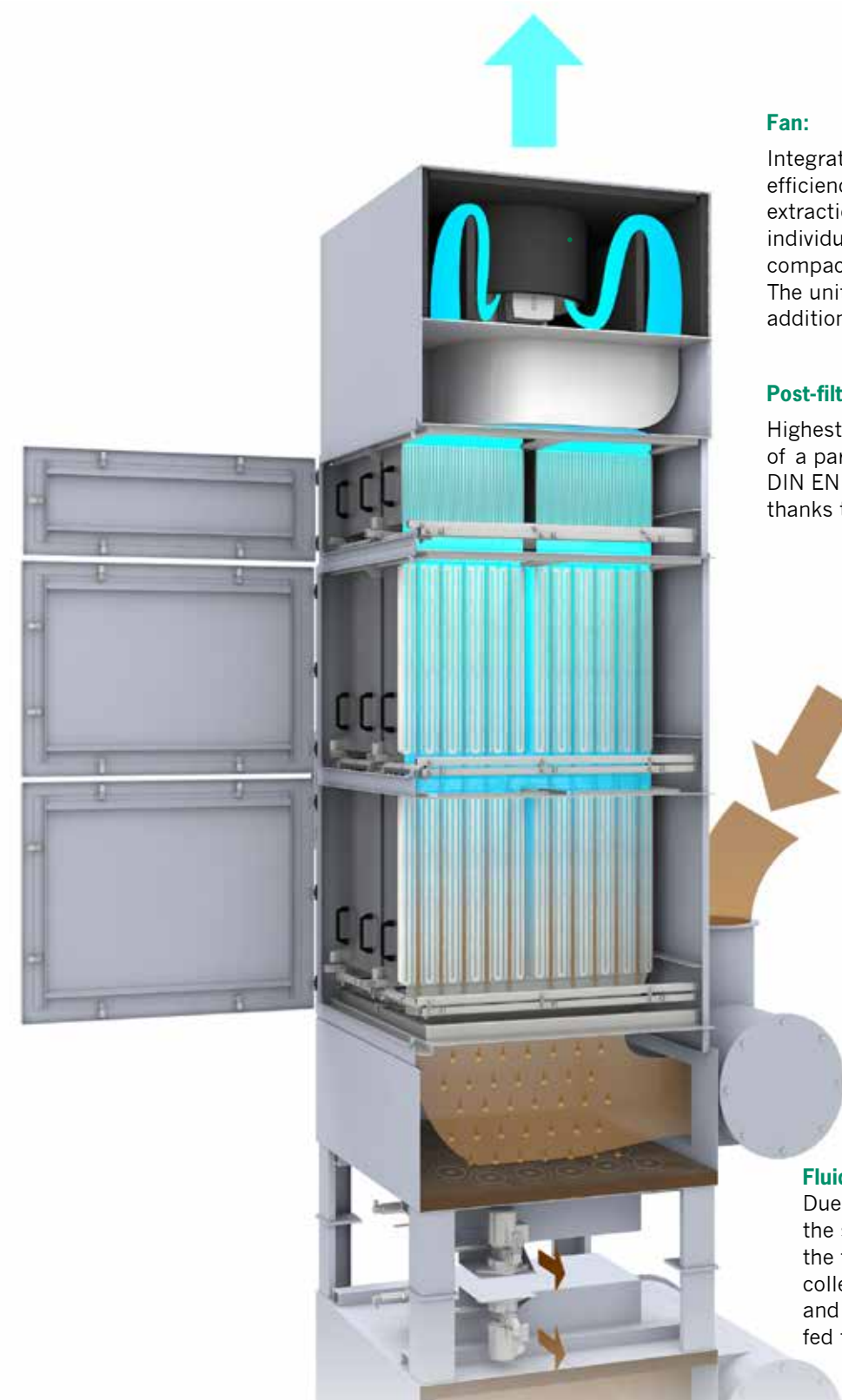
The Handte Oil Expert offers:

- ▶ Economically efficient separation of ultra-fine CL aerosols & fumes
- ▶ Puncture-proof filtration with guaranteed highest and constant degrees of separation of 99.97% acc. to test standard DIN EN 1822
- ▶ Optional clean air recirculation
- ▶ Long lifetime of the filter stages
- ▶ More efficient than conventional systems
- ▶ Suitable for continuous 3-shift operation
- ▶ Air flow can be adjusted without affecting the degree of separation
- ▶ Operator-friendly thanks to practically maintenance-free unit design
- ▶ Service-friendly thanks to tool-free filter change with quick-acting clamp
- ▶ Plug-and-play delivery



Customized system design & innovative filter media. For optimum separation and a long lifetime.

Cascade design of the separator
with ascending filter classes for individual combination matching the situation on site:



Fan:

Integrated or on-top fans designed pursuant to the latest efficiency standards provide for a reliable, constant extraction power in accordance with the customer's individual requirements. With the integrated fans, the compact noise insulation is enclosed in the housing. The units are delivered ready for plug-&-play without any additional assembly required at the installation location.

Post-filter stage:

Highest degree of separation of 99.97% in respect of a particle size of 0.3 μm pursuant to test standard DIN EN 1822 in combination with ultra-long lifetimes thanks to effective pre-filtration.

Camfil Handte APC CoaPack pre- and fine filter stage:

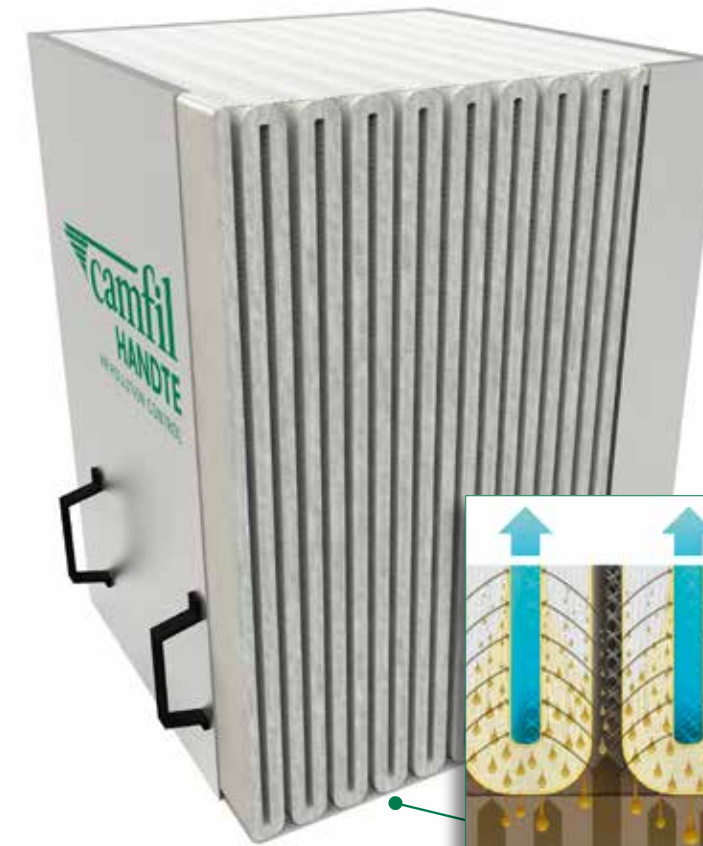
Camfil Handte APC's generic CoaPack pre- and fine filter stages are the heart of the Handte Oil Expert. Configured to meet the individual requirements, the multi-layer filter elements achieve highest separation efficiency at a very small differential pressure thanks to the maximum filter area possible in compact design. Developed for optimized drainage, the Camfil Handte APC CoaPack filter elements are self-regenerating. The cascade design of the filter stages provides for an additional self-cleaning effect.

Coarse filter stage:

The coarse filter stage is intended for high raw gas loads and contamination and ensures a long service life of the downstream filter stages.

Fluid collector:

Due to the self-regeneration of the filter elements, the separated cooling lubricant is discharged from the filter medium downwards into the integrated fluid collector. Via a circulation pump station or a siphon and discharge by gravity, the cooling lubricant can be fed to a facility for treatment, re-use or disposal.

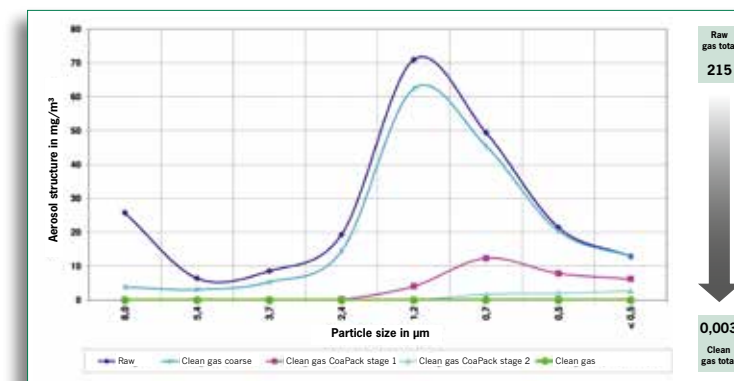


Filter cassette with fins » for maximum filter area.

The Camfil Handte APC CoaPack filter element provides for a maximum filter area with compact design. This construction ensures a homogeneous flow and optimum utilization of diffusion and coalescence, which is a relevant separation mechanism for ultra-fine aerosols. The small load acting on the filter surface reduces the energy consumption and significantly increases the service life of the filter element.

Ideal drainage behavior » for optimum filter regeneration.

The powerful filtration of the units of the Handte Oil Expert series is attributable to the maximum possible balance between separation performance and regeneration of the separated CL from the filter medium. This goal is achieved by using drainage-friendly materials in connection with special drainage support mats, protective screens, and spacers. The flow direction of the filter medium further supports the draining of the CL to the raw gas side.



Example: Fraction separation degree of the Handte Oil Expert

Highest separation performance and ultra-long lifetime.

In practice, the degree of separation of the cooling lubricant aerosols primarily depend on the distribution of particle size and their mass ratio in the supplied process exhaust air flow. The Handte Oil Expert is characterized in particular by its excellent separation efficiency with high raw gas loads and ultra-fine aerosol fractions while offering very long lifetimes and energy-efficient operation.

Clean maintenance, easy filter change:

Thanks to its functional design, the Handte Oil Expert is practically maintenance-free. Quick-acting clamps ensure that all scheduled changes of the filter cartridges are easy and require no tools, thus ensuring highest availability of the system. For easy, simple changing, the filter cartridges are accessed from the outside. The Camfil Handte APC transport carriage, available as an accessory, provides for drip-free removal of the filter cartridges – a perfect complement for the well-thought out service concept.

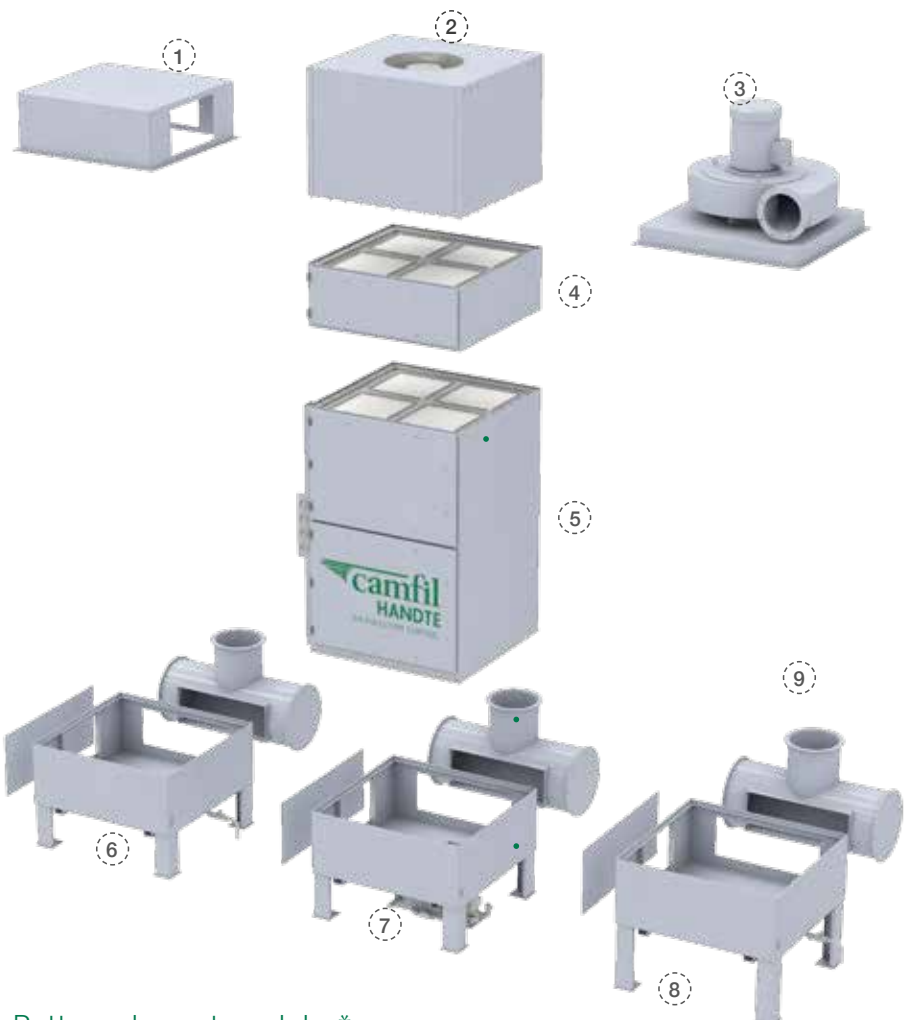


Practical fast-acting clamps



Camfil Handte APC transport carriage

Individual requirements apply on each shop floor.
The solution: basic modules in flexible combinations.



Top element modules
1 Connecting box
For use with external fan. For optimum flexibility and short connection paths, the intake line can be connected from both sides.

2 Integrated fan
High-grade fan of compact design, with integrated noise insulation.

3 On-top fan
For use in connection with a downstream silencer.

Post-filter stage module
4 Post-filter stage
Available as an option for highest demands such a fumes separation or clean air recirculation.

Main filter stage module
5 Main filter stage
For Camfil Handte APC CoaPack diffusion filter cartridges and optional use of the coarse filter stage for high contamination or clean air recirculation.

Bottom element modules*
6 Fluid collector for installation on platforms
Downward CL discharge via siphon or by gravity.

7 Fluid collector with recirculation pump station
If discharge by gravity is impossible, or for feeding into the CL recirculation supply of the machine tools. Integrated pumps available in two sizes.

8 Fluid collector for floor installation
Discharge of the cooling lubricant via siphon and by gravity.

9 Compact raw gas collector for connection to circular pipes

*With all bottom elements, the intake line can be connected from both sides for optimum flexibility and short connection paths.

Efficient applications in line with individual requirements:
The modular and expandable
Camfil Handte APC Oil Expert series.

For flexible configuration:

By freely combining different basic modules, it is possible to design economically efficient central extraction systems for each individual requirement, catering for air volumes of 70,000 m³/h or more. The modular concept of the Handte Oil Expert series furthermore provides for smooth, cost-efficient production conversions or extensions during ongoing operation.

- Major benefits of the modular design:**
- ▶ Standardized design for high planning safety and short delivery times
 - ▶ Optimized basic modules for highest utilization of capacity
 - ▶ Easy transport and installation
 - ▶ High redundancy for extremely safety
 - ▶ Easy extension or adaptation to the operating conditions



Handte Oil Expert is available in basic modules with different air flows



Handte Oil Expert 3.0 Handte Oil Expert 4.5 Handte Oil Expert 6.0 Handte Oil Expert 9.0 Handte Oil Expert 13.5

Optional expansions to meet every air flow
available modules Handte Oil Expert:

Versions:	Footprint:	Air volume:	Min./max. height:	Oil
Handte Oil Expert 3,0	770 x 1240 mm	to 3,000 m³/h	2,830 mm · 3,860 mm	
Handte Oil Expert 4,5	770 x 1725 mm	to 4,500 m³/h	2,850 mm · 3,900 mm	
Handte Oil Expert 6,0	1230 x 1181 mm	to 6,000 m³/h	2,930 mm · 3,960 mm	
Handte Oil Expert 9,0	1230 x 1725 mm	to 9,000 m³/h	3,050 mm · 4,100 mm	
Handte Oil Expert 13,5	1740 x 1725 mm	to 13,500 m³/h	3,220 mm · 4,360 mm	

Min. height: with recirculation pump stations, without post-filter, connection box. Max. height: with siphon recirculation, with post-filter, integrated fan. Subject to technical changes.

With new system know-how for competitive edge!

Camfil Handte APC Environmental Technology has a great tradition of developing new, innovative filter solutions. Process and production technology is another important building block to our success – after all, we want our solutions to be safe, effective, and primarily economically efficient for our customers. This is why we make our products



► **right here in Germany with an excellent German engineering team.**

In this way, we ensure top quality and a direct line from development to the shop floor.

► **according to the latest standards**

This is how we secure our customers' investments.

► **for our international agencies**

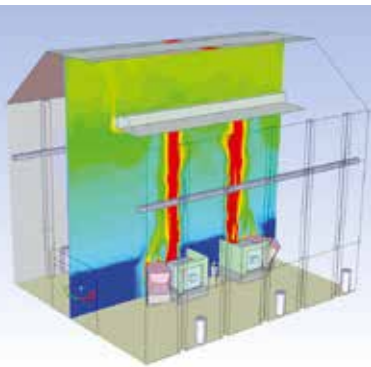
So that we are close to our customers. Our agencies in all the world offer an extensive service network.

► **for all relevant processes – and thus optimum one-stop solutions in exhaust air cleaning and ambient ventilation!**

Wet-washing processes, dry filtration, aerosol separation, smell elimination/VOC, absorption process, adsorption process, collection solutions, workstation solution, ambient ventilation, hot air recirculation technology, safety technology, fire extinguishing systems.

► **with state-of-the-art technology**

High-tech systems ensure the implementation of the latest, most innovative technology. We produce a large number of series at low prices in our laser welding units – for fault-free, fully automated production.



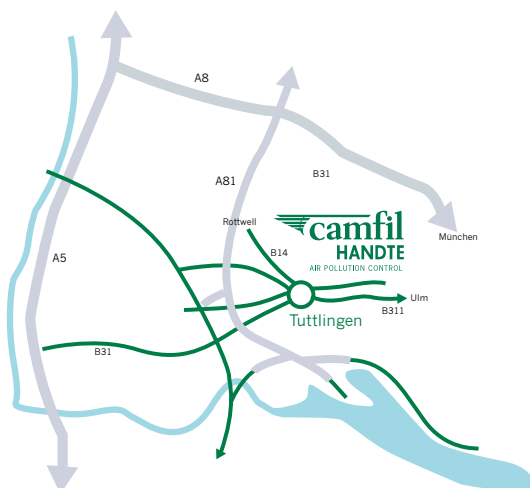
Innovative extraction & ventilation technology



High-quality products & systems



Assembly & service all over the world



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