



Our solutions  
protect people,  
processes and the  
environment from  
harmful particles.

# FOR A CLEAN PRODUCTION

OUR SOLUTIONS FOR INDUSTRIAL EXHAUST-AIR CLEANING HELP YOU TO PROTECT YOUR EMPLOYEES, PROCESSES AND THE ENVIRONMENT FROM HARMFUL EMISSIONS.

Camfil APC is one of the world's largest manufacturers of industrial dust, mist and fume collection equipment. As part of the global Camfil Group, we're represented on six continents and draw upon over 80 years experience and expertise to ensure that our customers are kept safe and productive. Every manufacturing process creates some kind of dust, mist or fume. These byproducts can be harmful to workers as well as machinery. Camfil APC's product range is designed to keep your workforce safe and healthy, and ensure that your operations and processes remain as efficient as possible. We firmly believe that clean air is a fundamental human right. That's why we develop and manufacture innovative solutions for industrial exhaust-air cleaning which help improving indoor air quality to meet government emission regulation. We offer unique industry expertise, local presence and customized air filter solutions

for most industries and production areas like Metal Industry, Automotive Industry, Pharma Industry Food & Beverage Industry and Mining.

We can provide expertise and high-quality products for the following filtration technologies:

- **Dry Filtration:** Separation of dry, fine, fibrous, sticky and combustible dust and fume.
- **Wet Filtration:** Safe separation for applications with flying sparks, explosive, sticky, moist or combustible dust.
- **Mist Separation:** Separation of ultra-fine oil and emulsion mist from machine tools.

From a simple filter system to complex turnkey solutions, from the initial design of the plant to the final completion. According to your requirements our employees define the best possible solution to separate harmful emissions from your processes.



# HISTORY CAMFIL APC

OVER 80 YEARS EXPERIENCE IN INDUSTRIAL EXHAUST-AIR CLEANING

Camfil's aim since the company began has been about providing efficient & effective clean air solutions to their customers to help protecting people, processes and the environment from harmful contamination and emissions. Today, Camfil Air Pollution Control (APC) is one of the global leaders for industrial exhaust-air solutions.

As early as 1889, the company named Handte was founded in Tuttlingen, Germany, and began to operate in the milling business. In 1945, Handte established the foundation for today's business model with the development of the first dust collector and continued to design and develop a wide variety of products for wet filtration as well as oil and emulsion separation which was even then a core competence of the company.

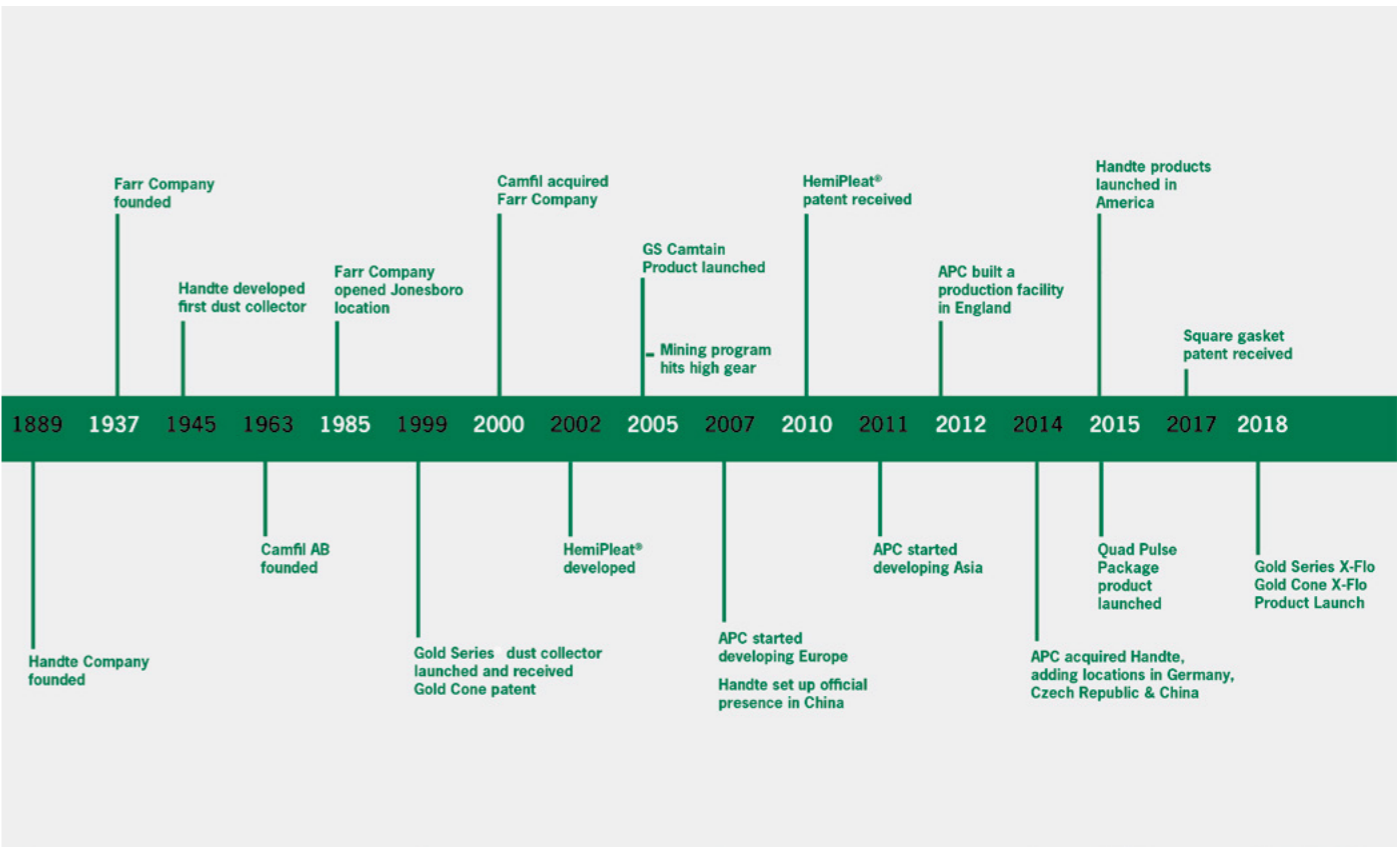
In 1937, the company Farr was founded in the United States.

The company started in the filter business, then expanded with solutions for dry dust and fume separation.

A significant turning point occurred in 2000 when Camfil acquired Farr. This integration of the company enabled Camfil to extend its range of products and services beyond air handling units and filter supplies to include with solutions for industrial dust, fume and mist collection.

In 2014, Handte became a part of the Camfil family, contributing to the success story of Camfil APC and at the entire Camfil Group.

Today, Camfil APC is an essential pillar of the Camfil Group and is globally shaping market development with innovative solutions for industrial exhaust-air cleaning.



# MEMBER OF THE CAMFIL GROUP

WHATEVER YOUR CLEAN AIR CHALLENGE IS, CAMFIL OFFERS A DEDICATED FILTRATION SOLUTION FOR YOUR UNIQUE NEEDS.

## Filtration Solutions (HVAC)

Filters are integral to all our offerings and constitute the largest part of our business. Our air filters can be as small as a match-box or as large as a shipping container. But whatever their size, the end product is clean air – free of harmful pollutants, dust, dirt, allergens, contaminants, molecular gases and, in some cases, even life-threatening radiation. By providing clean air, our filters improve people's health and performance, protect critical manufacturing processes, boost productivity and safeguard the environment.

## Camfil Air Pollution Control (APC)

Operates in North America, Europe and Asia. Our mission is to design, manufacture and supply a full range of dust, mist and fume collectors to clean factories, schools, businesses and more, making working environments safer, more productive and

more sustainable. Our equipment is used in metal processing, pharmaceutical processing, mining, food processing, chemical processing and many other industries.

## Camfil Power Systems

Specializes in air inlet and acoustical systems for turbomachinery, including gas turbines, generators, industrial air compressors and diesel engines. Our engineering experts continuously strive to protect this high-value equipment by designing the best filtration and acoustical solutions to meet the priorities and requirements of original equipment manufacturers (OEMs), engineering procurement construction companies (EPCs), operators and end users. They can be assured that their equipment will operate in the most profitable way, with maximum availability and reliability.

## Camfil Molecular Contamination Control (MCC)

Operates globally in North America, Europe, the Middle East and Asia. The MCC division delivers molecular filtration solutions in light processes, industrial applications, cleanrooms and large installations concerned with indoor air quality, such as airports. You've probably heard about sulphur dioxide, hydrogen sulphide, nitrogen dioxide, ozone, kerosene, formaldehyde and ammonia. How about polyaromatic hydrocarbons, volatile organic compounds (VOC), benzene, isocyanates and siloxanes? These are a few examples of chemicals present in gas form in the atmosphere either outdoor or inside buildings. They all require molecular filtration to protect people, processes or machinery, or simply to remove odours.

## Vision: clean air, A human right

At Camfil, we believe breathing clean air should be a human right. That's why we offer a wide range of premium clean air solutions for commercial and industrial air filtration, air pollution control and turbomachinery applications. Clean air improves worker and equipment productivity, minimises energy use, and benefits human health and the environment. Through a fresh approach to problem-solving, innovative design, precise process control and a strong customer focus we aim to conserve more, use less and find better ways – so we can all breathe easier.

## Mission

Protecting people, processes and the environment by defining, developing and delivering filter solutions that combine clean air with energy efficiency, in a sustainable and profitable way.



# OUR STRENGTHS

## Global service & delivery options

Our network of 4,500 employees worldwide offers global service and delivery options, local customer support and individual solution proposals for use in almost all production areas.

## Own production for filters & housings

We produce all core components of our products, not only the housings but also the filter elements. This allows us to fully control quality and optimize the products.

## Over 80 years experience in industrial exhaust-air cleaning

Building on Farr and Handte heritage, Camfil APC has over 80 years experience in the business of industrial exhaust-air cleaning.

## Technical, knowledgeable staff

Our employees are professionals with many years of experience in the development, production and technical support of air pollution control systems of all sizes.



# RESEARCH & TECHNOLOGY

*"We do what is required of us to have the best understanding of our customers' air quality problems and the optimum solutions to resolve them." (Owner's Directive)*

Our state-of-the-art research facilities include:

- Gas turbine + air pollution control test rigs
- Molecular + particle test rigs
- IAQ laboratory
- HEPA laboratory
- Scanning electron microscope (SEM)
- Training rooms

These facilities and equipment help us on research and development of innovative products and solutions. Analysing customer dust samples help us to understand their applications. With this knowledge we are able to recommend the best possible solution for customer needs. Besides that we also build our own manufacturing equipment in our process equipment workshop.

*"Camfil is more than a production company: we are the leading experts in air quality and we choose to manufacture our own products to guarantee the best possible quality." (Owner's Directive)*



# PRODUCTION FACILITIES

CAMFIL APC HAS FOUR PRODUCTION FACILITIES ON THREE CONTINENTS. FOR OUR CUSTOMERS THIS MEANS SHORT WAYS, QUICK DELIVERY TIMES AND ON-SITE-SERVICE.



## JONESBORO, USA

- 26,000 m<sup>2</sup>
- 260 employees
- Gold Series
- Oil mist collectors
- Filter cartridges



## TUTTLINGEN, GERMANY

- 5,500 m<sup>2</sup>
- 150 employees
- Assembly of oil mist collectors and wet scrubbers



## TAICANG, CHINA

- 5.200 m<sup>2</sup>
- 60 employees
- Oil mist separators, wet scrubber, Gold Series, QPP



## CHOMUTOV, CZECH REPUBLIC

- 6,100 m<sup>2</sup>
- 100 employees
- Welding and pre-assembly
- Complete production of Gold Series, Quantum, QPP

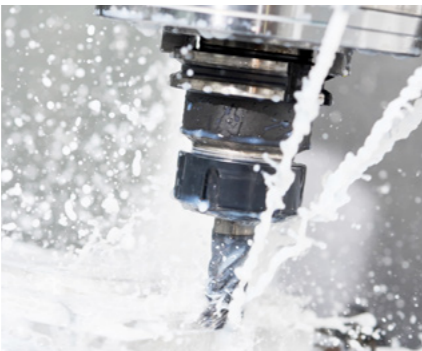
# KEY MARKETS

## METAL INDUSTRY



Metal processing generates emissions like dust, fumes, sparks, and mist from cooling lubricants. Camfil APC offers centralised or decentralised solutions to protect your employees, processes and the environment.

## METAL OEM



Camfil APC offers some of the most innovative and efficient solutions for exhaust-air cleaning on the market. We develop our solutions in string partnership with well known machine tool manufacturers using our own R&D department and test facilities.

## AUTOMOTIVE INDUSTRY



Weld fume from production lines and fine metal fumes from production of battery systems for electric vehicles create harmful emissions. Reliable and efficient solutions from Camfil APC always guarantee clean air and process reliability.

## PHARMACEUTICAL INDUSTRY



During production and packing of tablets hazardous dust is produced. Especially designed for this industry we offer solutions with integrated containment for safe change of filter cartridges and dust discharge.

## FOOD & BEVERAGE INDUSTRY



The production and handling of solid food ingredients and food products creates airborne dust in the workplace. These dusts create a number of significant challenges to food and beverage manufacturers and Camfil APC can provide solutions.

## MINING INDUSTRY



It is challenging to control dust from mining processing equipment, such as crushing, screen, and conveyor transfer points. Our dust collection systems help to meet regulatory requirements.

# FILTRATION TECHNOLOGIES

## DRY FILTRATION



Separation of dry, fine, pourable, fibrous, sticky or combustible dusts and fumes.

## WET SCRUBBER



Safe separation for applications with flying sparks, explosive, sticky, moist or combustible dust.

## MIST SEPARATION



Separation of ultra-fine oil and emulsion mist from machine tools.

## PRODUCT PORTFOLIO



# GOLD SERIES X-FLO

## MODULAR CONSTRUCTION TO FIT ANY APPLICATION

GSX dust collectors effectively process dust while maintaining a low pressure drop. You get the maximum airflow and dust processing power for any given footprint. GSX collectors use crossflow technology and a unique baffle configuration to create a uniform airflow that extends the life of your filters. Filter cartridges last longer and require fewer changeouts, reducing the total cost of ownership.

### APPLICATIONS

Handles hazardous and combustible dry dusts including smoke and fumes; accepts fine, fibrous and heavy dust loads.



### BENEFITS

- ✓ Modular design for different sizes & configurations
- ✓ High airflows up to 10,000 m³/h per module
- ✓ Up to 4 cartridges per module
- ✓ Explosion protected
- ✓ More filter media, small footprint
- ✓ Maximum durability
- ✓ Easy to use & maintain

### DESIGN / FILTERS

We designed the inlet, filter cartridges and filter position so each housing module can accommodate larger cartridges without increasing the overall footprint. Each module holds four cartridges of HemiPleat® filter media and can handle airflows up to 10,000 m³/h while maintaining a low pressure drop.

### EXAMPLE MODELS

AIR VOLUME
Gold Series X-Flo 2
Gold Series X-Flo 4
Gold Series X-Flo 12L
Gold Series X-Flo 32

### AIR VOLUME

<5,000 m³/h
<10,000 m³/h
<30,000 m³/h
<80,000 m³/h

### DIMENSIONS

1,067 x 1,159 x 3,956 mm (w x d x h)
1,067 x 1,692 x 3,956 mm (w x d x h)
1,372 x 3,670 x 3,956 mm (w x d x h)
4,267 x 2,759 x 4,363 mm (w x d x h)

### WEIGHT

726 kg
794 kg
1,633 kg
3,833 kg

# GOLD SERIES CAMTAIN

## SAFE SOLUTION FOR PHARMACEUTICAL APPLICATIONS

Gold Series Camtain is the contained dust collector solution from Camfil APC. Safe-change containment systems are available for both the filter cartridges and discharge system. The cartridge change utilizes a bag-in/bag-out (BIBO) method while the discharge uses continuous liner technology. The Gold Series can also support traditional dust collection for nuisance dusts and fumes that do not require full isolation and containment.

### APPLICATIONS

The dust collector designed specifically for pharmaceutical and containment applications like tablet presses + coating, fluid bed drying, spray drying, blending, granulation, general room ventilation.



### BENEFITS

- ✓ Safe-change containment systems for filter cartridges & discharge system
- ✓ High-efficiency filters up to E12 99.5% at MPPS (most penetrating particle size), or greater than 95% at ePM1
- ✓ Specially treated filter media repels fine particulates for a lower pressure drop and longer filter life

### DESIGN / FILTERS

Gold Cone® cartridge filter design provides 25% more media for long service life. HemiPleat® filter technology ensures uniform pleat spacing with synthetic beads that hold the pleats of the filter cartridge wide open.

### EXAMPLE MODELS

AIR VOLUME
Gold Series Camtain 2
Gold Series Camtain 4
Gold Series Camtain 6
Gold Series Camtain 8

### AIR VOLUME

3,000 m³/h
6,000 m³/h
9,000 m³/h
12,000 m³/h

### DIMENSIONS

1,067 x 1,159 x 3,956 mm (w x d x h)
1,067 x 1,692 x 3,956 mm (w x d x h)
1,067 x 2,226 x 3,956 mm (w x d x h)
1,372 x 2,604 x 3,956 mm (w x d x h)

### WEIGHT

872 kg
1,380 kg
1,478 kg
1,778 kg

# GOLD SERIES HIGH VACUUM FOR HIGH PRESSURE / VACUUM APPLICATIONS

Camfil APC offers a complete range of High Vacuum (HV) dust collectors to provide the highest levels of extraction performance across a wide range of applications. In their simplest form, they provide a centralized cleaning operation to help maintain a hygienic and safe working environment. More complex installations with process machines require the targeted source capture of dust to reduce machine maintenance, downtime and assist with product purity and cross contamination prevention.

### APPLICATIONS

Central vacuum systems, high-pressure bin vents, pharmaceutical/hazardous dust.



### BENEFITS

- ✓ Pulse cleaning system for continuous operation
- ✓ 2 and 4 filter cartridge option
- ✓ Dust explosion protection
- ✓ Hazardous dust containment features (bag-in/bag-out)
- ✓ Flanged, tangential inlet minimizes dust contacting the filters
- ✓ Can be configured as a stand-alone dust collector or without hopper and support structure for bin vent applications

### DESIGN / FILTERS

All our HV dust collectors use Camfil APC filter media technology to ensure the highest filtration performance combined with optimum dust release characteristics, filter service life and energy saving potential.

### EXAMPLE MODELS

Gold Series 2M HV  
Gold Series 4M HV  
Gold Series 2 HV  
Gold Series 4 HV

### AIR VOLUME

<2,200 m³/h  
<4,400 m³/h  
<3,600 m³/h  
<7,200 m³/h

### DIMENSIONS

1,443 x 1,540 x 4,498 mm (w x d x h)  
1,443 x 1,540 x 4,611 mm (w x d x h)  
1,324 x 1,537 x 4,733 mm (w x d x h)  
1,629 x 1,857 x 5,314 mm (w x d x h)

### WEIGHT

995 kg  
1,020 kg  
1,025 kg  
1,050 kg

# QUAD PULSE PACKAGE SERIES CLEAN. SAFE. EFFICIENT.

Many processes in the pharmaceutical and chemical industries produce high concentrations of hazardous dusts. Cleanable filter systems make it possible to have continuous manufacturing processes and prevent regular, expensive filter replacements. The Quad Pulse Package family cleans filters in four segments, one at a time so that they are continually cleaned without interrupting airflow. The system is available with one filter cartridge and two filter cartridges for higher air volumes. Its compact design features easy installation, bag-in/bag-out process for the primary/secondary filters and discharge bin.

### APPLICATIONS

Tabletting, filling, coating, granulating, drying, mixing, blending, packaging, central vacuum.



### BENEFITS

- ✓ Compact design/1 or 2 filter cartridges
- ✓ Clean online without interrupting operations
- ✓ Easy installation
- ✓ BIBO safe-change
- ✓ Integrated explosion protection
- ✓ ATEX certified
- ✓ HV-applications

### DESIGN / FILTERS

Primary filter with excellent filtration efficiency removes the majority of collected dust and prolongs the service life of the second-stage filter. The HEPA filter up to H13 providing 99,95% filtration efficiency to capture the finest, most hazardous dust particles.

### EXAMPLE MODELS

QPP1 PX1  
QPP1 PX  
QPP2 PX

### AIR VOLUME

500 - 1,200 m³/h  
500 - 1,200 m³/h  
1,000 - 3,000 m³/h

### DIMENSIONS

1,152 x 852 x 2,200 mm (w x d x h)  
1,152 x 852 x 2,200 mm (w x d x h)  
1,470 x 1,270 x 2,500 mm (w x d x h)

### WEIGHT

1,050 kg  
950 kg  
1,500 kg

# QUANTUM SERIES

## SAFE. COMPACT. CLEAN.

The Quantum Series® is a compact and powerful, fine dust and fume collector designed for the metal fabrication, thermal cutting and welding markets. The Quantum Series' integrated spark arrestor and improved filter design allows this unit to provide the highest levels of efficiency and safety. Designed to take up the minimum possible floor space, the Quantum Series can be located close to your processes in order to minimize ductwork and reduce fire hazards created by sparks.

### APPLICATIONS

Welding, laser & plasma cutting, non-explosive fine dust.



### BENEFITS

- ✓ Dual pulse technology
- ✓ Integrated spark arrestor
- ✓ Plug & play installation
- ✓ Maximum reliability
- ✓ Minimum footprint
- ✓ High efficiency PTFE filter cartridges
- ✓ Three different sizes available – up to 5,500 m³/h

### EXAMPLE MODELS

Quantum Series QS2	1,500 - 2,500 m³/h*
Quantum Series QS4	3,000 - 4,500 m³/h*
Quantum Series QS6	4,500 - 5,500 m³/h*

### AIR VOLUME

### DESIGN / FILTERS

As sparks can cause poor performance, damage the collector and filter media or present a fire hazard, many dust collectors require an external spark arrestor that is expensive and requires more floor space. The Quantum Series® has been designed to avoid these issues. By combining horizontal PTFE filter cartridges, fan design and dual pulse system, Quantum Series will filter even the finest, most dangerous dust with no loss in efficiency or back-pulse cleaning of the filters.

### DIMENSIONS

1,200 x 1,550 x 2,262 mm (w x d x h)
1,200 x 1,550 x 3,195 mm (w x d x h)
1,200 x 1,550 x 3,895 mm (w x d x h)

### WEIGHT

about 900 kg
about 1,300 kg
about 1,500 kg

# ZEPHYR III

## FOR DRY AIRBORNE DUST & FUMES

The mobile pulse-cleaned extraction system Zephyr III with one filter cartridge and one arm is designed to exhaust and filter dry air borne pollutants especially at welding, grinding, polishing, cutting of metals and plastics directly at the source at various locations.

### APPLICATIONS

Welding fumes, grinding dusts, dry dusts, soldering fumes and other airborne particles.



### BENEFITS

- ✓ Portable cleaner for airborne dust and fumes
- ✓ Three-stage filtration
- ✓ Roll-out dust drawer
- ✓ Easy, 360° capture hood positioning
- ✓ Plug-n-play: simply supply electrical and compressed air connections
- ✓ Manually-activated, venturi-assisted pulse cleaning system

### EXAMPLE MODELS

Zephyr III	1,200 m³/h
Zepyhr Giant	2,000 m³/h

### AIR VOLUME

### DESIGN / FILTERS

- Three stage filtration as standard:
- ✓ Primary metal mesh filter
  - ✓ Gold Cone® HemiPleat® Extreme flame retardant
  - ✓ Carbon after filter for ozone only
  - ✓ H13 HEPA filter as option when required

### DIMENSIONS

742 x 887 x 1,400 mm (w x d x h)*
940 x 1,210 x 1,281 mm (w x d x h)*

\* excluding arm

### WEIGHT

145 kg*
190 kg*

\* incl. arm

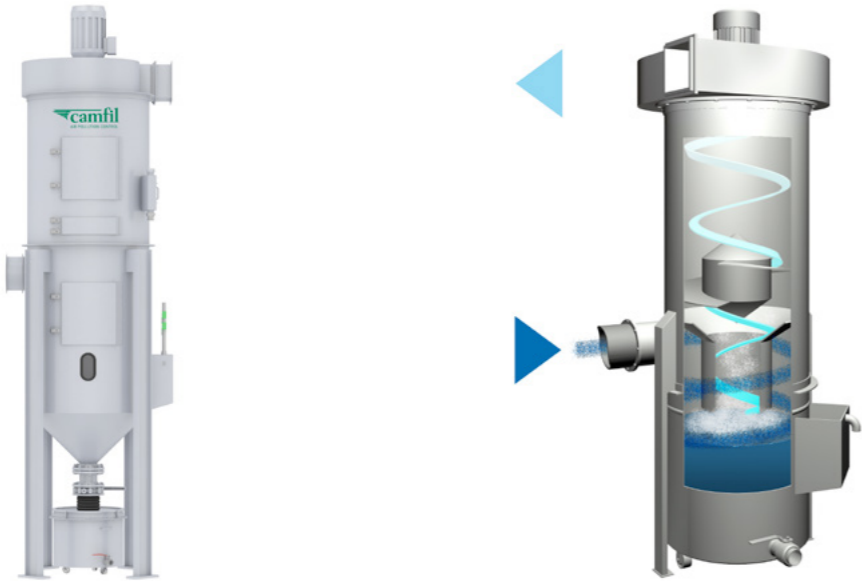
# VORTEX

## FOR FIBRES & FLUFF INCLUDING STICKY SUBSTANCES

The Handte Vortex is a combination of centrifugal and water separator with a downstream fan which works on the water swirl principle. The contaminated air is introduced at a tangent 'knocking out' the heavier particulate which settles on the surface of the water. The special channelling of the airflow generates an intensive swirl of water through which the pollutant laden air stream is passed. Intensive mixing with the water causes the pollutants to bond and precipitate. A radial mounted spiral separates the liquid through centrifugal force from the pollutants bound up in the air stream. The cleaned air is discharged by the fan located on top of the unit.

### APPLICATIONS

All metals, fettling, sawing, grinding, polishing, brushing, deburring



### BENEFITS

- ✓ Specialist for polishing and light metal chips applications
- ✓ No filter elements
- ✓ Low maintenance
- ✓ Automatic sludge scraper upgradable

### OPERATING PRINCIPLE

Particles in the contaminated air stream are brought into contact with water in order to bind them and increase their weight and size. The centrifugal action of the wet scrubber separates these particle laden water droplets from the air stream, returning them to the base of the unit where the particles settle out and form a sludge.

### EXAMPLE MODELS

AIR VOLUME	
Vortex 1.2	1,200 m³/h
Vortex 2.4	2,400 m³/h
Vortex 9.0	9,000 m³/h
Vortex 60.0	60,000 m³/h

### DIMENSIONS

Depending on customers operation mode and the modular sludge removal system

### WEIGHT

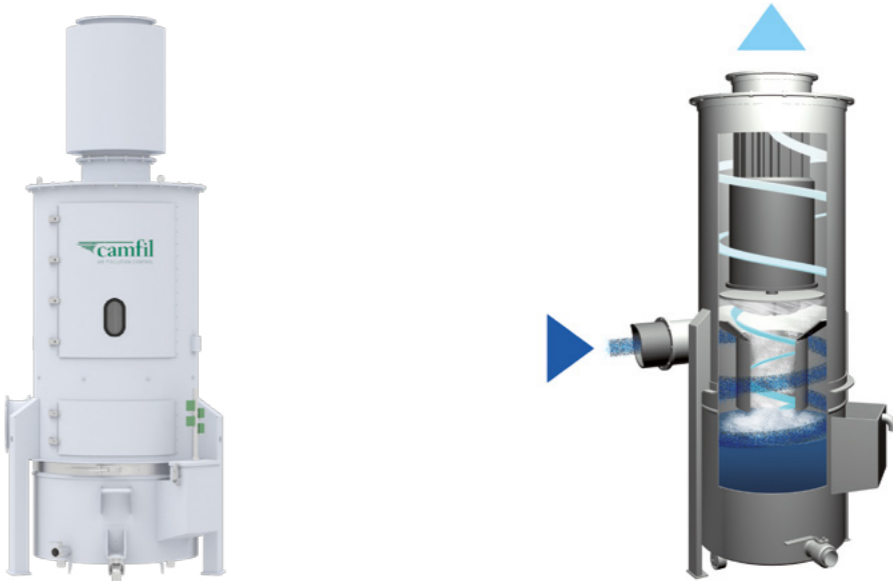
# VORTEX DUAL

## EXTREME VERSATILE & EFFICIENT

The Handte Vortex Dual works with an integrated fan. Pollutants are separated from the air stream by means of a combination of water swirl and disintegration principle. Pollutant-laden air enters the middle section at a tangent and is deflected. An air flow is channelled to generate a strong swirl of water through which the contaminated air must pass. Ultrafine particles are filtered out by means of the fan blade which is simultaneously employed as a disintegrator whereby non-separated particles are mixed intensively with water and flung through centrifugal force into a wall of water to achieve a high level of separation. The cleaned air is discharged from the top of the unit.

### APPLICATIONS

All metals, fettling, grinding, brushing, deburring



### BENEFITS

- ✓ Unique disintegrator principle
- ✓ No filter elements
- ✓ Low maintenance
- ✓ Low height, small footprint

### OPERATING PRINCIPLE

Particles in the contaminated air stream are brought into contact with water in order to bind them and increase their weight and size. The centrifugal action of the wet scrubber separates these particle laden water droplets from the air stream, returning them to the base of the unit where the particles settle out and form a sludge.

### EXAMPLE MODELS

AIR VOLUME	
Vortex Dual 1.2	1,200 m³/h
Vortex Dual 2.4	2,400 m³/h
Vortex Dual 3.6	3,600 m³/h
Vortex Dual 7.2	7,200 m³/h

### DIMENSIONS

Depending on customers operation mode and the modular sludge removal system

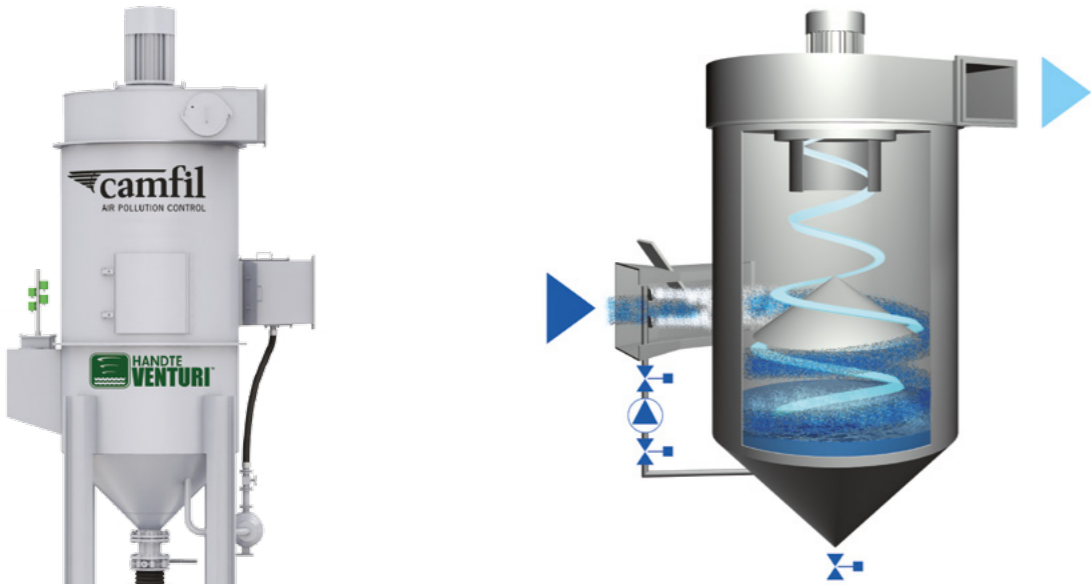
### WEIGHT

# VENTURI FOR HIGHEST SEPARATION PERFORMANCE

The Handte Venturi is designed to incorporate the highly-efficient Venturi principle. Pollutantladen air is led at a tangent to the scrubber via a Venturi throat sprayed with scrubbing liquid. The air is accelerated in the upstream Venturi throat and the scrubbing liquid finely atomised. The high relative velocity of the air stream and the scrubbing liquid causes an intensive mixing of the media whereby the pollutants agglomerate/settle in the liquid droplets. In the downstream centrifugal droplet separator the pollutant-laden scrubbing fluid is separated from the air stream. The cleansed air escapes through the central pipe to the ventilator which is mounted on the clean gas side.

## APPLICATIONS

All metals, grinding, brushing, deburring/fettling, shot blasting, hardening, forming processes.



## BENEFITS

- ✓ Separation efficiency adjustable on grain size distribution and particles density
- ✓ No fan power limitation
- ✓ Easy maintenance due to simple accessibility
- ✓ Automatic sludge scraper upgradable

## OPERATING PRINCIPLE

Particles in the contaminated air stream are brought into contact with water in order to bind them and increase their weight and size. The centrifugal action of the wet scrubber separates these particle laden water droplets from the air stream, returning them to the base of the unit where the particles settle out and form a sludge.

## EXAMPLE MODELS

AIR VOLUME	
Venturi 3.6	3,600 m³/h
Venturi 5.4	5,400 m³/h
Venturi 15.0	15,000 m³/h
Venturi 60.0	60,000 m³/h

## DIMENSIONS

Depending on customers operation mode and the modular sludge removal system

## WEIGHT

# OIL EXPERT MODULAR DESIGN, INNOVATIVE FILTER MEDIA

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

## APPLICATIONS

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



## BENEFITS

- ✓ Progressive filtration design for highest separation efficiency
- ✓ Modular design for flexible configuration
- ✓ Innovative new filter media for a long lifetime
- ✓ Very easy filter change for simple, clean maintenance
- ✓ Collection efficiency at 99,95% on 0,3 micron (MPPS DIN 1822)
- ✓ Suitable for continuous 3-shift operation
- ✓ Plug & Play

## EXAMPLE MODELS

AIR VOLUME	
Oil Expert 3.0	3,000 m³/h
Oil Expert 4.5	4,500 m³/h
Oil Expert 6.0	6,000 m³/h
Oil Expert 13.5	13,500 m³/h

## DESIGN / FILTERS

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

## DIMENSIONS

WEIGHT*	
770 x 1,240 x 3,917 mm (w x d x h)	1,032 kg
770 x 1,730 x 3,940 mm (w x d x h)	1,200 kg
1,230 x 1,180 x 4,880 mm (w x d x h)	1,600 kg
1,740 x 1,730 x 4,470 mm (w x d x h)	3,680 kg

\* with integrated fan

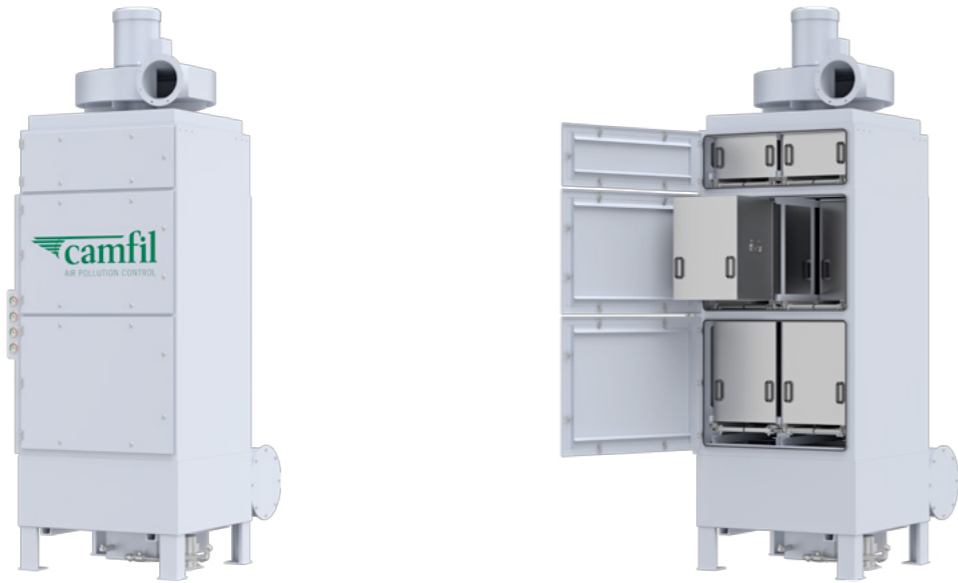
# EM EXPERT

## HANDLES ULTRA-FINE COOLING LUBRICANT & FUMES

With advances in technology, machine tool productivity and accuracy continues to improve. As a result, there's an increasing need to collect ultra-fine mists and fumes. To ensure worker safety, production efficiency, and the protection of capital plant and equipment, compliance with workplace exposure limits cannot be compromised. The EM Expert provides optimum results even in the most challenging conditions.

### APPLICATIONS

The Handte EM Expert is suitable for use with turning, drilling, milling, cutting, roughing and grinding in connection with cooling lubricants (CLs) or separation agents.



### BENEFITS

- ✓ Highly efficient, multi-stage filtration
- ✓ Flexible and modular design
- ✓ Multiple units can be combined for any size application
- ✓ Self-cleaning filtration media
- ✓ Long filter life with minimal maintenance requirement
- ✓ Optional HEPA filter
- ✓ Suitable for continuous 3-shift operation

### DESIGN / FILTERS

The progressive design boasting ascending filter classes with coarse separator mesh for high contamination, the standard Camfil APC CoaPack diffusion filter stages provided as a preliminary filter, fine filter and the optional downstream final 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 mists and fumes generated in the course of high-performance machining.

### EXAMPLE MODELS

EXAMPLE MODELS	AIR VOLUME
EM Expert One 1.5*	1,500 m³/h
EM Expert One 3.0*	3,000 m³/h
EM Expert 4.5*	4,500 m³/h
EM Expert 20.0**	20,000 m³/h

### DIMENSIONS

DIMENSIONS
790 x 750 x 2,560 mm (w x d x h)
790 x 1,405 x 2,700 mm (w x d x h)
770 x 1,190 x 3,500 mm (w x d x h)
1,785 x 1,735 x 4,000 mm (w x d x h)

### WEIGHT

WEIGHT
600 kg
760 kg
1,000 kg
3,200 kg

\*with integrated fan / \*\* without fan

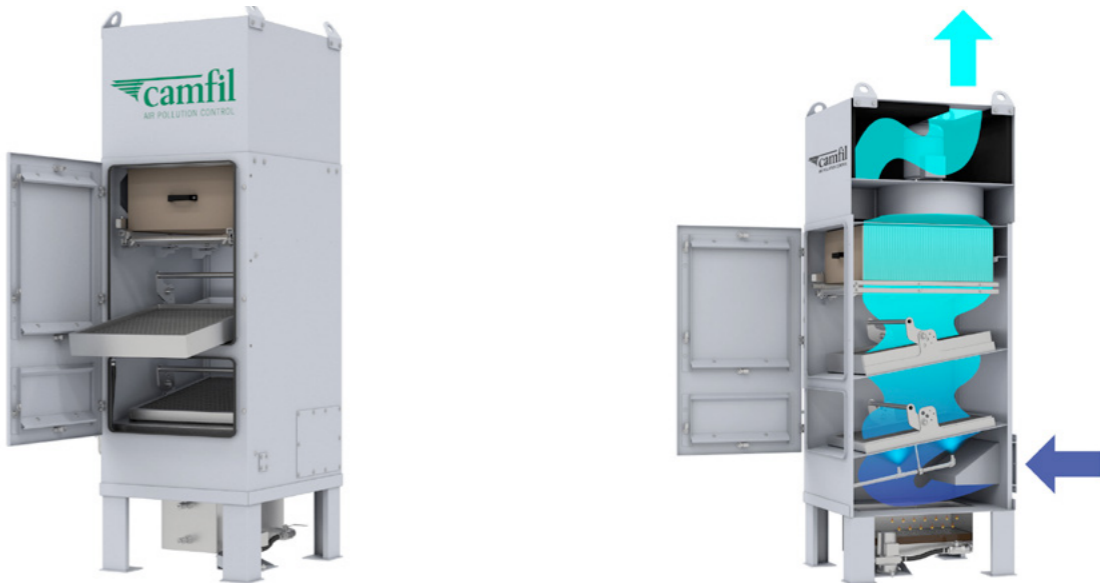
# EM PROFI

## HIGHLY EFFICIENT FOR COOLANT MIST

The EM Profi mist collector offers the highest available collection efficiencies in collecting coolant mist from machining processes plus the ability to run 24/7. Large service doors and quick-lock latches make it possible for a single technician to easily perform installation and removal from the floor. Service life between changeouts is up to six years for mist separation filters and two years for HEPA filters. Large maintenance doors and quick-clamping elements facilitate fast, toolless filter replacement. Due to these features, EM Profi collectors offer substantial savings through reduced downtime, longer changeout cycle intervals, and increased productivity and reliability.

### APPLICATIONS

Turning, milling, honing and other low speed/low pressure machining processes that use synthetic coolants.



### BENEFITS

- ✓ Collection efficiencies up to 99,95%
- ✓ Self-cleaning
- ✓ Automatic sprayer system reduces filter buildup
- ✓ Corrosion-proof and washable two-stage filtration system
- ✓ Easy maintenance
- ✓ Modular assembly

### DESIGN / FILTERS

We consistently achieve high separation performance by designing our filter materials to meet specific needs or to handle a given droplet spectrum and through the optimised flow-engineered multistage design of our units. FINAL FILTER - for the highest requirements with proven separation efficiency of F9 to H13 from own production. SELFREGENERATING SEPARATION STAGES - demister filter design, construction and configuration provides a self-regenerating filtration system.

### EXAMPLE MODELS

EXAMPLE MODELS	AIR VOLUME
EM Profi 3.0	3,000 m³/h
EM Profi 4.5	4,500 m³/h
EM Profi 9.0	9,000 m³/h
EM Profi 13.5	13,500 m³/h

### DIMENSIONS

DIMENSIONS
1,040 x 840 x 2,630 mm (w x d x h)
1,290 x 800 x 2,830 mm (w x d x h)
1,720 x 1,310 x 3,170 mm (w x d x h)
2,440 x 1,310 x 3,170 mm (w x d x h)

### WEIGHT\*

WEIGHT*
700 kg
850 kg
1,700 kg
2,400 kg

\* with integrated fan

# EM-O COMPACT

## COMBINED EMULSION & OIL MIST SEPARATOR

The EM-O Compact separator was specially developed for simple and flexible integration in machine tools with emulsion and oil applications without major conversions. The biggest advantage is that the same filter elements are used. An optional HEPA afterfilter is mounted on top of the unit for usage with oil (<30 bar). This compact device can be integrated flexibly into your machines: as topmount or stand-alone device, with connection options left/right. The separator is delivered ready for operation and can also be adapted to your requirements with various accessories on request.

### APPLICATIONS

Full lubrication applications with emulsion or oil and for selected minimum lubrication applications with air volume from 800 - 1,200 m³/h.



### BENEFITS

- ✓ Compact construction
- ✓ Maximum filter area
- ✓ >F9 separation efficiently (filtration) with optional HEPA filter
- ✓ Long service life
- ✓ Energy-efficient
- ✓ Plug & work

### DESIGN / FILTERS

The compact unit is build up with a four stage filter design: pre-separation, prefilter, primary filter and an optional HEPA filter for best clean gas values: separation efficiency >F9. The lightweight filter elements can be replaced easily and without tools, the metal prefilter can be easily washed out and reused. Optimized filter media for better drainage in operation.

### EXAMPLE MODELS

EM-O Compact 1.0

### AIR VOLUME

800 - 1,200 m³/h

### DIMENSIONS

553 x 412 x 1,094 mm (w x d x h)

### WEIGHT

from 97 kg  
(depending on  
configuration)

# EM-O FLEX

## MODULAR EMULSION & OIL MIST SEPARATOR

The Handte EM-O Flex separator has been designed as a flexible modular system for medium to high air capacities, serving as a central separation system. Its areas of application include series production as well as individual applications on large machine tools with full lubrication (emulsion or oil) and for selected minimum quantity lubrication (MQL). An individual module can be used with an air capacity of 4,000 m³/h to 8.000 m³/h and, in a combination of up to six modules, with up to 48,000 m³/h.

### APPLICATIONS

Due to its high degree of flexibility, it can be used for different applications in metal cutting, e.g. grinding, turning, milling, etc., especially in aerosol separation.



### BENEFITS

- ✓ Flexible configuration for emulsion, oil, and MQL applications
- ✓ Easy adjustment to changed process conditions
- ✓ Modular system, minimal footprint
- ✓ Optimised maintenance
- ✓ Energy-saving

### EXAMPLE MODELS

Handte EM-O Flex 1.1

Handte EM-O Flex 2.1

Handte EM-O Flex 2 x 2.1

Handte EM-O Flex 2 x 2.1

### AIR VOLUME

4,000 - 8,000 m³/h

8,000 - 16,000 m³/h

16,000 - 32,000 m³/h

32,000 - 48,000 m³/h

### DESIGN / FILTERS

The newly developed filter elements EM-O Pack for the main filter stage unite coarse and fine filter stage in one housing. The media can be combined depending on load, particle properties and air volume. The EM-O Pack filter cassettes impress with their low weight, compact design and special installation situation. The additional coarse pre-separator, e.g. for chips and coarse particles, is easy to clean and can additionally be equipped with the filter element EM-O Bag for optimised pre-separation, e.g. of solid or larger dirt loads.

### DIMENSIONS\*

1,205 x 1,750 x 1,767 mm (w x d x h)

1,205 x 1,750 x 2,910 mm (w x d x h)

2,445 x 1,750 x 2,910 mm (w x d x h)

3,685 x 1,750 x 2,910 mm (w x d x h)

### WEIGHT\*

701 kg

1,091 kg

2,182 kg

3,273 kg

\* Dimensions and weights without raw gas and clean gas collector, maintenance area in front of the system: 1,200 mm.

# CAMFIL FILTER CARTRIDGES FOR CAMFIL DUST COLLECTORS OR AS RETROFIT

Independent lab tests demonstrate that Camfil filter cartridges capture more air pollutants and release more of those pollutants when pulsed, creating a safer, cleaner work environment with less maintenance. Whether used in Camfil or other brand dust collectors, our filters maintain a steady pressure drop that lasts through the lifetime of the filter.



## HEMIPLEAT® CARTRIDGES & RETROFITS

Pleats made with HemiPleat technology are uniform across the entire media and are held open instead of pressed together

- ✓ Available for any dust collector
- ✓ 100% media usage
- ✓ Extended filter life
- ✓ High cleaning efficiency

## DURA-PLEAT® CARTRIDGES

Combines the best of both worlds: the high efficiency of pleated media and the versatility of synthetic materials

- ✓ Washable & reusable
- ✓ Exceptionally long life
- ✓ Extended filter life
- ✓ Versatile for many environments

# DEMISTER & FILTER CASSETTES EXCELLENT PERFORMANCE FOR MIST COLLECTION

Demister and filter elements are the heart of every separation system. To provide high-quality products Camfil APC mainly develop and produce solutions that combine clean air with ernergy efficiency in a sustainable way. Furthermore our filter elements convince due to their ideal drainage performance for optimum filter regeneration with the result of extended filter life. Changes of our filter elements are easy, clean and require no tools.



## COAPACK - FILTER CASSETTE WITH MEDIA SEPARATORS FOR MAXIMUM FILTER AREA

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

## IDEAL DRAINAGE PERFORMANCE 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 cooling lubricant from the filter media. 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 media further supports the draining of the dirty air.

# GOLD SERIES

- Customizable configurations
- 800 – 250,000 m<sup>3</sup>/h
- Abrasive & Explosive Applications



# WET SCRUBBERS

- Customizable configurations
- Handling of combustible & flammable dusts
- Up to 160,000 m<sup>3</sup>/h installations



# MACHINING MIST COLLECTORS

- Customizable configurations
- Handling of oil and emulsion mist
- Central separation systems or machine tool integration



## YOUR PARTNER FOR GLOBAL SOURCING

Camfil APC is a leading supplier of industrial exhaust air purification and part of the Camfil Group, the world market leader in air filters and air purification systems, with over 4,500 employees worldwide and more than 50 years of experience. With our comprehensive product portfolio and global service and delivery options, we offer absolute customer proximity and individual solution proposals for use in almost all production areas.



## TRUST THE EXPERT!



Our engineers and employees are absolute professionals with many years of experience in the development, production and technical support of air pollution control systems of all sizes. From a simple filter system to complex turnkey solutions, from the initial design of the plant to the final completion – we are looking forward to your inquiry!



Camfil APC/Image + Core Products/Brochure/English/08-2019

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