# Product Catalog

Premium
Oil Mist and
Oil Smoke
Filtration

A•mist A•line A•smoke









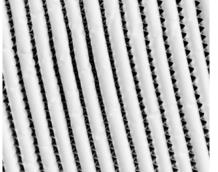
# Made in Sweden to Clean **Air** Wherever You Are

We all want the air we breathe to be healthy. In reality though, millions of dollars are being wasted in industries every year as a result of poor process air filtration. With the right filter unit you can feel safer while saving money and improving the environment at the same time.

Our filter units are designed to clean the air from the machines in your workshop. They capture pollution and pass clean air ahead. It all starts with the Absolent Catch & Release® filter cassettes. They are the heart of the process filtration unit, carefully designed and manufactured to match the needs of any customer.

Because of the innovation and knowledge behind our brand we are able to offer plenty of standard units available for delivery on short notice. We also love when our customers challenge us. To customize solutions that solve any oil mist and/or oil smoke problem has become our specialty.







# WHAT WE DO

We filter polluted process air from machines in your workshop.

Our filter units eliminate oil mist, oil smoke and dust from applications like machining, turning, die casting, forming, and grinding. We bring clean air to everyone, with high quality products and a strong focus on innovation and customized solutions.



### HOW WE DO IT

We capture and drain the oil so you don't have to worry.

Our filter units are equipped with filter cassettes that we adapt to the machine. Each one captures millions of oil particles while draining the oil so that it may be collected or re-used in the production. As a final stage a HEPA H13 filter ensures clean air. With Absolent you normally won't need to service or change filter cassettes more than once a year.

### WHY WE DO WHAT WE DO

We protect your health, the environment and save you money.

Polluted air can have bad consequences for both health and environment. We make sure the air is safer to breathe. Pollution that would otherwise be let out into the premises is eliminated and you can enjoy a healthier environment, while saving money on things like cleaning, ventilation and repairs.





# The Absolent Way

We don't just sell a filter, we sell a solution and we always make sure that the solution fits the process perfectly – not the other way around.

Our goal is to deliver the best solution possible. In order for us to do that, you need to tell us a few things.

#### WHAT ARE WE CLEANING?

We want to know how contaminated the air is and what type of contamination we are dealing with. Is it oil mist, oil smoke or dust?

#### WHAT CAN WE RECYCLE?

Depending on the process there are a few possibilities when it comes to recycling. The oil can be collected and potentially re-used in the machine. The air can be recycled which reduces your energy costs.

#### WHAT ARE YOUR PROCESS PRIORITIES?

We adapt the installation to the conditions in your workshop and to the service intervals that are most convenient for you.

When you choose Absolent we help you all the way. It's always included in the price of your filter unit.



We carry out a **project analysis** where we determine the problems and needs of your application.



We help you with the **project design**, including placement of units and layout of duct work/ equipment. We can also assist you during installation and we are able to take full responsibility for the design of hoods and different types of extraction.



We measure the air quality, study the machinery and examine the requirements of the premises.



We offer advice, suggest measures and guarantee the highest conceivable delivery precision.



If the conditions should change, we help figure out how to **modify** the solution. We offer service agreements that will lengthen the life of the filters.



# Change Your Air Change Your Future

It is our mission to make the air that you and your colleagues breathe as clean and safe as we possibly can.

There is plenty of information about airborne pollution in our outdoor environment, but much less research has been done on indoor industrial air. The amount of air pollution that makes people wear face masks in some cities is equivalent to just one third of what is permissible in workshops around the world. This even though the particles in industrial processes often are of the same size. Fortunately, our customers are companies that focus on environmental and health related issues. Companies that care – just like we do.

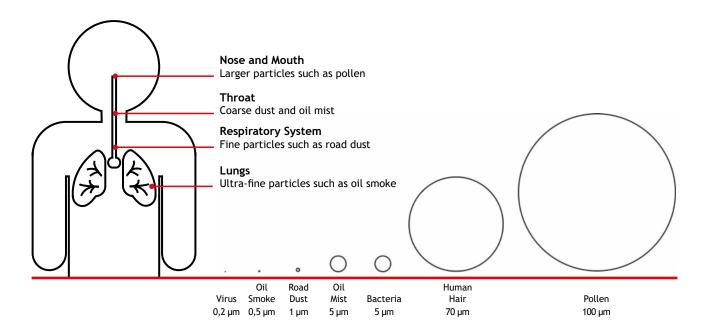
### What is Oil Mist & Oil Smoke?

Oil smoke and oil mist consist of airborne oil droplets. The difference between the two is the size and the amount. Oil mist particles vary between 1-10 microns which is about the same size as bacteria. Oil smoke particles are smaller, about 0.1-1 microns, closer to the size of viruses, and occur in larger quantities.

Oil mist is normally generated from processes where water-based coolant is used for lubrication or chip removal, for instance during turning, milling, grinding and drilling. Most commonly in machines working at slow speeds with low coolant pressures.

Oil smoke is generated from processes where neat oil is used and occurs at high temperatures, when the machines are working at high speeds and/or use high coolant pressures. It may also occur during minimal quantity lubrication (MQL) or during hot manufacturing processes such as die casting, hot/cold forming and heat treatment, or in the food industry, rubber and plastic industry as well as in the textile industry.

Both oil mist and oil smoke particles are extremely small. Research has shown that the smaller the particle is, the deeper it penetrates the body.



# The more successful we are, the more beneficial it is for the environment. - Axel Berntsson, CEO



#### CHANGE YOUR ENVIRONMENT

A filter unit from Absolent ensures that the air leaving your machine is completely clean. Hazardous oil mist and oil smoke are prevented from being released into the ambient air. This makes your plant a safer workplace for your employees, while you also care for the environment both in and around your plant.



### **CHANGE YOUR WORKLIFE**

Absolent filter units will normally clean the air in the plant for at least one year without replacements or maintenance. No need for inconvenient downtime in your production or additional service staff. The time and money that is saved can be used to make the manufacturing process even more effective.



#### **CHANGE YOUR COSTS**

Oil mist and oil smoke pollution will not only effect the health of the staff. It is also expensive as it causes increased costs for cleaning, maintenance, sickleave and failure of electronics. How long you can afford to wait before doing something about it?





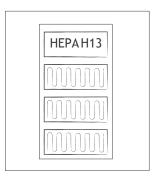
# It's All in the Filter Cassettes

When a filter unit from Absolent is connected to an average manufacturing machine, several barrels of oil are captured every year. Here is how it's done!



#### Catch & Release®

When the polluted air reaches the filter material, wet oil particles stick to its fibers. Eventually the oil droplets fall to the bottom of the filter unit. From there they can be collected or returned to the machine. Our filter cassettes are manufactured in our own factory in Lidköping, Sweden and they are equipped with our patented Catch & Release function. They consist of carefully selected material, folded between aluminum separators, designed to let air pass through while capturing oil particles.



## Several Filtration Stages

The majority of our units filter the polluted air through several stages. The air passes through different filter cassettes before it is returned to the premises or released outside, completely free from oil mist or oil smoke. The largest particles are filtered from the air at the first stage and the filter stages that follow consist of finer materials designed to capture smaller particles. The final stage is a HEPA H13 filter. It guarantees a separation degree of at least 99.97% during the entire operating time.



# TFS - Tilted Filter System

Some of our newly developed filter units come with TFS - Tilted Filter System. Like our other cassettes these ones include the same built-in Catch & Release® function. The difference is that these cassettes have been fitted into the filter unit at an angle. This helps with drainage and improves the longevity of the filter material in the cassettes, which reduces your service costs even more.





# Stand-Alone or Centralized Filtration?

When choosing the perfect filter unit for your workshop we take a lot of things into consideration. Depending on machine dimensions, floor space, general ventilation connections and much more we figure out what works best and if it should be a stand-alone or centralized filter unit.

#### One Filter Unit - One Machine

Stand-alone filter units are great because they are always at easy access right on or by your machine.

- Less energy is consumed since the distance between the machine and the filter is shorter.
- Flexible solution if you move the machine the filter moves with it.
- Cutting fluids are kept separate and can easily be returned to the machine they came from.
- Ideal when space is limited.
- Can be hung from the ceiling, placed on the wall or on a stand next to be machine.

#### One Filter Unit - Several Machines

A centralized filter unit is connected by ducts to one or several machines.

- The total air flow can be reduced in case not all machines are open simultaneously.
- Service of the filter unit can be restricted to one area.
- Ideal if you want to connect your filter to the general ventilation and recycle the heated air.
- Large capacity to accommodate bigger machines or many machines at once.
- Can be placed wherever there is free floor space instead of right next to the machine.



One filter unit - one machine: Installation at Premium Aerotech, A•mist<sup>10C</sup>



One filter unit - several machines.
Installation at Volvo Zhangjiakou, A•mist<sup>80TF</sup>



# A•mist - Oil Mist Filter

If you have CNC machines, running at a moderate speed and with a moderate coolant pressure, oil mist will start to leak into the factory. The oil mist consists of mid-sized particles and the fog is moderately thick. It does not only irritate your lungs, but your wallet as well. Invest in an A•mist filter and the problems disappear at a low cost!

Our A•mist filter range has many different filter units to choose from. Both centralized solutions and stand-alone filters for smaller machines. It all depends on the needs you have in your workshop.

- ✓ CLEAN AIR GUARANTEE

  HEPA H13 eliminates at least 99,97% of all oil mist particles.
- ✓ **DESIGNED FOR OIL MIST**Perfect for applications that generate oil mist.
- SAVE MONEY AND THE ENVIRONMENT Long filter life and a low life cycle costs.

### A PERFECT MATCH



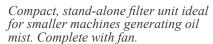




## A•mist<sup>6C</sup>







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MAX. IN. PARTICLE LOAD	10 mg/m <sup>3</sup>
AIR FLOW, RATED	600 m <sup>3</sup> /h
EXT. PRESSURE DROP	150 Pa
MOTOR SIZE	0.55 kW
WEIGHT (DRY)	65 kg
INLET DUCT	Ø 125 mm
DIMENSIONS (HxWxD)	1000x620x350 mm





## A•mist<sup>10C</sup>





Compact, stand-alone filter unit, with or without HEPA filter depending on your needs. Complete with fan.

MAX. IN. PARTICLE LOAD	10 mg/m <sup>3</sup>
AIR FLOW, RATED	1000 m <sup>3</sup> /h
EXT. PRESSURE DROP	150 Pa
MOTOR SIZE	0.55 kW
WEIGHT (DRY)	130 kg
INLET DUCT	Ø 160 mm
DIMENSIONS (HxWxD)	807x1190x684 mm





# A•mist<sup>10</sup>





Stand-alone filter unit to be placed on the floor close to the machine. Complete with fan.

MAX. IN. PARTICLE LOAD	10 mg/m <sup>3</sup>
AIR FLOW, RATED	1000 m <sup>3</sup> /h
EXT. PRESSURE DROP	150 Pa
MOTOR SIZE	0.55 kW
WEIGHT (DRY)	115 kg
INLET DUCT	Ø 160 mm
DIMENSIONS (HxWxD)	1555x620x663 mm





# A•mist<sup>20</sup>





Stand-alone or centralized filter unit for one mid-sized or a few smaller machines. Complete with fan.

MAX. IN. PARTICLE LOAD	20 mg/m <sup>3</sup>
AIR FLOW, RATED	2000 m <sup>3</sup> /h
EXT. PRESSURE DROP	300 Pa
MOTOR SIZE	2.2 kW
WEIGHT (DRY)	215 kg
INLET DUCT	Ø 200 mm
DIMENSIONS (HxWxD)	2060x620x663 mm





# A•mist<sup>40T</sup>





Stand-alone or centralized unit without fan unit. Ideal for one larger or a few smaller machines generating oil mist.

MAX. IN. PARTICLE LOAD	20 mg/m <sup>3</sup>
AIR FLOW, RATED	4000 m³/h
EXT. PRESSURE DROP	-
MOTOR SIZE	-
WEIGHT (DRY)	280 kg
INLET DUCT	Ø 315 mm
DIMENSIONS (HxWxD)	1820x645x1263 mm





# A•mist<sup>40TF</sup>





Stand-alone or centralized unit with fan unit. Ideal for a one larger or a few smaller machines generating oil mist.

MAX. IN. PARTICLE LOAI	20 mg/m <sup>3</sup>
AIR FLOW, RATED	4000 m³/h
EXT. PRESSURE DROP	1300 Pa
MOTOR SIZE	4.0 kW
WEIGHT (DRY)	350 kg
INLET DUCT	Ø 315 mm
DIMENSIONS (HxWxD)	2350x645x1263 mm









## A•mist<sup>80T</sup>





A larger filter to suit one large machine or serve as a centralized unit for several machines. Without fan.

MAX. IN. PARTICLE LOAI	20 mg/m <sup>3</sup>
AIR FLOW, RATED	8000 m <sup>3</sup> /h
EXT. PRESSURE DROP	-
MOTOR SIZE	-
WEIGHT (DRY)	640 kg
INLET DUCT	Ø 400 mm
DIMENSIONS (HxWxD)	2068x1415x1263 mm





# A•mist<sup>80TF</sup>





A larger filter to suit one large machine or serve as a centralized unit for several machines. Complete with fan.

MAX. IN. PARTICLE LOAD	20 mg/m <sup>3</sup>
AIR FLOW, RATED	8000 m <sup>3</sup> /h
EXT. PRESSURE DROP	1400 Pa
MOTOR SIZE	7.5 kW
WEIGHT (DRY)	730 kg
INLET DUCT	Ø 400 mm
DIMENSIONS (HxWxD)	2720x1415x1263 mm





# A•mist<sup>80C</sup>





A modular filter (from 8000m³/h) which cost-effectively can be adapted to suit different conditions. Without fan.

MAX. IN. PARTICLE LOAD	10 mg/m <sup>3</sup>
AIR FLOW, RATED	8000 m³/h
EXT. PRESSURE DROP	-
MOTOR SIZE	-
WEIGHT (DRY)	250 kg
INLET DUCT	Ø 400 mm
DIMENSIONS (HxWxD)	1470x1165x1336 mm





# A•mist<sup>120T</sup>





A larger filter to serve as a centralized unit for several machines. Without fan.

MAX. IN. PARTICLE LOAD	20 mg/m <sup>3</sup>
AIR FLOW, RATED	12 000 m <sup>3</sup> /h
EXT. PRESSURE DROP	-
MOTOR SIZE	-
WEIGHT (DRY)	On request
INLET DUCT	On request
DIMENSIONS (HxWxD)	On request





# A•mist<sup>160T</sup>





A larger filter to serve as a centralized unit for several machines. Without fan.

MAX. IN. PARTICLE LOAD	20 mg/m <sup>3</sup>
AIR FLOW, RATED	16 000 m <sup>3</sup> /h
EXT. PRESSURE DROP	-
MOTOR SIZE	-
WEIGHT (DRY)	On request
INLET DUCT	On request
DIMENSIONS (HxWxD)	On request





# A•mist<sup>200T</sup>





A larger filter to serve as a centralized unit for several machines. Without fan.

MAX. IN. PARTICLE LOAD	20 mg/m <sup>3</sup>
AIR FLOW, RATED	20 000 m <sup>3</sup> /h
EXT. PRESSURE DROP	-
MOTOR SIZE	-
WEIGHT (DRY)	On request
INLET DUCT	On request
DIMENSIONS (HxWxD)	On request







# A•line - Oil Mist/Smoke Filter

With A•line, you get a versatile filter that is adaptable to your needs. A unique filter equally suitable for small, tough machines, as for machines that generate moderate amounts of oil mist and smoke.

With A•line, you're equipped for the future. Even if you change the coolant, cutting speed or coolant pressure in the machine, A•line handles the task anyway. The filter series also comes with A•control - a hande-held, electronic device that allows you get the right amount of air precisely where and when you need it. Our smartest filters yet.

- ✓ CLEAN AIR GUARANTEE

  HEPA H13 eliminates at least 99.97% of all oil mist particles.
- ✓ **DESIGNED FOR OIL MIST & OIL SMOKE**Perfect for applications that generate oil mist and oil smoke.
- SAVE MONEY AND THE ENVIRONMENT Long filter life and a low life cycle costs.

#### A PERFECT MATCH







MACHINING GRINDING

FORMING/PRESSING







Small, stand-alone filter unit for a machine generating oil mist/oil smoke.

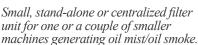
MAX. IN. PARTICLE LOAD	70 mg/m <sup>3</sup>
AIR FLOW, RATED	500 m <sup>3</sup> /h
EXT. PRESSURE DROP	<100 Pa
MOTOR SIZE	0.36 kW
WEIGHT (DRY)	80 kg
INLET DUCT	Ø 125 mm
DIMENSIONS (HxWxD)	850x560x665 mm





A•10





MAX. IN. PARTICLE LOAD	70 mg/m <sup>3</sup>
AIR FLOW, RATED	1000 m <sup>3</sup> /h
EXT. PRESSURE DROP	<1000 Pa
MOTOR SIZE	1.15 kW
WEIGHT (DRY)	140 kg
INLET DUCT	Ø 160 mm
DIMENSIONS (HxWxD)	920x965x680 mm





# A•control

Hand-held, electronic device that makes it easy to control, manage and monitor your filter unit.











# Take control

A handheld, electronic device with a seven inch color screen that gives you new opportunities to manage, control and monitor your filter unit. The A•control has information about the pressure drop at each filter stage, running hours, fan speed and much more. You can adjust all settings right from the hand unit. It has never been so easy to clean the air from your machines.



# A•smoke - Oil Smoke Filter

If you run your CNC machines at high speed and with a high coolant pressure, or if you work with die casting or hardening, oil smoke will rise from the machines. It is thick and consists of tiny particles that penetrate everything and can even reach your bloodstream! The same problem often arises during minimal quantity lubrication (MQL).

To get rid of this type of pollution, you need to install a tough filter – A•smoke! Your work environment and your finances will thank you!

- ✓ CLEAN AIR GUARANTEE

  HEPA H13 eliminates at least 99.97% of all oil mist particles.
- DESIGNED FOR OIL SMOKE

  Perfect for applications that generate oil smoke.
- SAVE MONEY AND THE ENVIRONMENT Long filter life and a low life cycle costs.

#### A PERFECT MATCH

















# A•smoke - Filters for Smokey Industries



## A•smoke<sup>5</sup>



Compact filter unit ideal for one small machine generating oil mist or oil smoke. Complete with fan.

MAX. IN. PARTICLE LOAD	70 mg/m <sup>3</sup>
AIR FLOW, RATED	500 m <sup>3</sup> /h
EXT. PRESSURE DROP	100 Pa
MOTOR SIZE	0.36 kW
WEIGHT (DRY)	70 kg
INLET DUCT	Ø 125 mm
DIMENSIONS (HxWxD)	520x900x620 mm





# A•smoke<sup>80TF</sup>





Filter unit ideal for larger or several machines generating oil mist/oil smoke. Complete with fan.

MAX. IN. PARTICLE LOA	D 150 mg/m <sup>3</sup>
AIR FLOW, RATED	8000 m³/h
EXT. PRESSURE DROP	<500/1900 Pa
MOTOR SIZE	11/15 kW
WEIGHT (DRY)	1500 kg
INLET DUCT	Ø 400 mm
DIMENSIONS (HxWxD)	4000x1394x2120 mm





## A•smoke<sup>20</sup>





Stand-alone or centralized filter unit for one mid-sized or several smaller machines. Complete with fan.

MAX. IN. PARTICLE LOAD	70 mg/m <sup>3</sup>
AIR FLOW, RATED	2000 m³/h
EXT. PRESSURE DROP	600 Pa
MOTOR SIZE	2.2 kW
WEIGHT (DRY)	300 kg
INLET DUCT	Ø 200 mm
DIMENSIONS (HxWxD)	2421x700x783 mm





# A•smoke<sup>80T</sup>





Filter unit ideal for larger machines or several smaller machines generating oil mist or oil smoke. Without fan.

MAX. IN. PARTICLE LOA	D 150 mg/m <sup>3</sup>
AIR FLOW, RATED	8000 m <sup>3</sup> /h
EXT. PRESSURE DROP	-
MOTOR SIZE	-
WEIGHT (DRY)	1430 kg
INLET DUCT	Ø 400 mm
DIMENSIONS (HxWxD)	2940x1153x2115 mm
DIMENSIONS (HxWxD)	2940x1153x2115





## A•smoke<sup>40</sup>





Stand-alone or centralized filter unit for one larger or several smaller machines. Complete with fan.

MAX. IN. PARTICLE LOAD	0 150 mg/m <sup>3</sup>
AIR FLOW, RATED	4000 m <sup>3</sup> /h
EXT. PRESSURE DROP	800 Pa
MOTOR SIZE	7.5 kW
WEIGHT (DRY)	1000 kg
INLET DUCT	Ø 315 mm
DIMENSIONS (HxWxD)	3530x1127x1167 mm





## A•smoke<sup>160T</sup>





Filter unit ideal for a couple of larger or many smaller machines generating oil mist or oil smoke. Without fan.

MAX. IN. PARTICLE LOAD	150 mg/m <sup>3</sup>
AIR FLOW, RATED	16 0000 m <sup>3</sup> /h
EXT. PRESSURE DROP	-
MOTOR SIZE	-
WEIGHT (DRY)	2500 kg
INLET DUCT	Ø 800 mm
DIMENSIONS (HxWxD)	3348x2263x2165 mm







# References

For many years Absolent has solved problems with oil mist, oil smoke and dust all over the world. Don't just take our word for it. Here's a peak at some of the companies that enjoy clean air just as much as we do.





#### ATLAS COPCO Tierp, Sweden



With a central filter adapted to the conditions, frequent service intervals and expensive running costs are long gone. Atlas Copco saved both time and money when an A•mist<sup>80TF</sup> from Absolent replaced eleven filters on their CNC-machines.



# OUTOKUMPU



Långshyttan, Sweden

Outokumpu Stainless AB turned to Absolent to find a solution to their problems caused by the rolling mills in the factory. The results were clean air and a satisfied customer that returns to Absolent over and over again, as the years go by.



#### YIHAI KERRY



Kunshan, China

Yihai Kerry Foodstuffs had been searching for a filtration solution for the production of potato chips. No supplier could provide a filter that was able to deal with the immense amount of smoke and mist that was leaking from the machine, until Absolent came along.



#### NSK Kunshan, China



#### **DIFA** Škofja Loka, Slovenia



**NOBEL BIOCARE** 



Stockholm, Sweden



Nobel Biocare decided to replace the existing filter units on their CNC-machines with Absolent units with Ecodrive. They improved the working environment and cut operating costs significantly.

After several unsuccessful attempts to eliminate oil smoke from the workshop, NSK in Kunshan turned to Absolent. We solved the problem. Now the air is clean and no more oil smoke is leaking from the quenching machines.

# At DIFA d.o.o. in Slovenia the premises around the die casting machines were so contaminated that it affected the visibility in the production area, making the manufacturing process harder and more time consuming. Absolent solved the problem.

### MORE CUSTOMERS WORLDWIDE

ABB | Alcoa | Atlas Copco | Audi | Berger Precision | Borbet | Bosch Caterpillar | Charter Automotive | Chongqing Sokon Motor | Continental Danfoss | Delphi | Eaton | Elos | Georg Fischer | GKN | GM Jaguar Landrover | Ljunghäll | Lundbergs Metallgjuteri | Magna | NSK Outokumpu | Peer Bearings | Procter & Gamble | SAAB | Sandvik | Scania Seco Tools | SKF | SPAX International GmbH & Co. KG | Synthes | Thyssen Krupp TRW | Volkswagen | Volvo | ZF | Åges Metallgjuteri and many more...

# Absolent Worldwide

We could brag about experience, sleek design and references. We could amaze you with numbers and flashy technology. But we would rather tell you about what is underneath the surface, inside our filters and behind the walls of Absolent. About our material which purifies the air. And about us, the people behind the brand. We're the ones that always make sure that you get your filtration needs met, no matter how big or small they are.

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# **OFFICES**

Absolent is constantly growing. So far we have nine offices well spread around the world in Germany, USA, France, China, India, Japan, Switzerland, Norway and, of course, Sweden where it all started. We also work with many experienced distributors.

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# **EMPLOYEES**

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Our employees are an important part of our international success. They are the ones who calculate, quote, assemble, transport and passionately work to develop filtration solutions that exceed the expectations of our customers.





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