oberA
Ensuring your air quality

AFS

Oil-mist filter

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Oil-mist filter

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AFS Technology

Metalworking, whether with or without chip removal, generates aerosols, mists, vapors and fumes. These pollutants are created by heating and moving tools and the presence of lubricants. As machines become faster and more powerful, they generate finer and more harmful pollutants. Air contaminated in this way poses a danger to the health and safety of operators, and to the environment.
AFS suction and filtration systems are capable of treating these pollutants and guaranteeing compliance with maximum concentrations at the workstation and in emissions in the event of external discharges.

AFS filtration equipment treats pollutants:

- Oil and emulsion mist
- MMS micro-lubrication mist
- Fumes

Treatment units can:

- Installed locally above or in the immediate vicinity of machining centers;
- Be installed centrally, drawing in the various machines in the workshop via a piping network

AFS technology is based on **mechanical separation and filtration**. Separation consists of **5 treatment stages: metal mesh filters, polyester felts, and the AFS-Longlife separator**, which constitutes the heart of the treatment.

Finally, the units are equipped with an absolute HEPA H13 terminal filtration system (guaranteed efficiency >99.95% on 0.3µm particles). Given the high efficiency of the main filtration, absolute filters have a **very long service life**, even for continuous 3-station operation.

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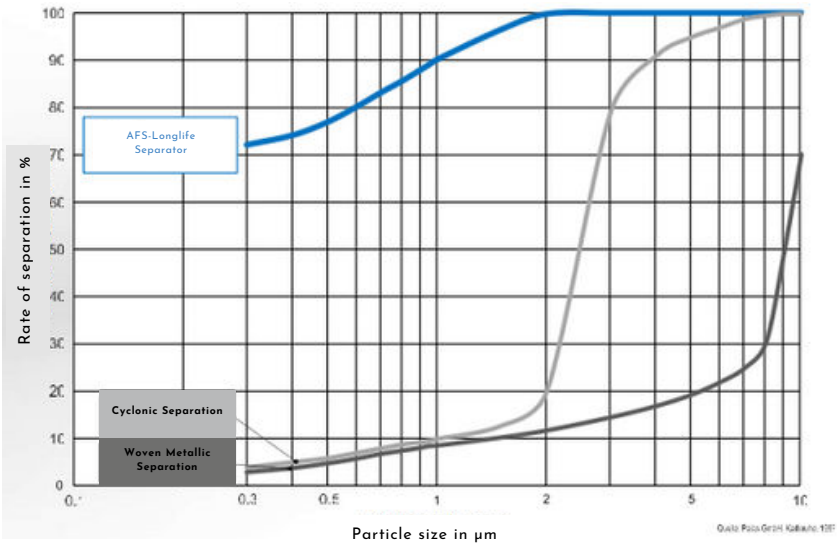
The AFS-Longlife module

The heart of filtration is AFS-Longlife technology. The AFS-Longlife module is a high-efficiency honeycomb plate separator.

This principle offers a number of key advantages:

- Self-cleaning
- Maintenance-free
- Separates virtually all particles and aerosols > 2.0 µm

Numerous independent studies confirm the efficiency of the AFS-Longlife separator :



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AFS oil mist filters are the **tailor-made solution for directly equipping your machining centers or for centralized extraction.** AFS units are virtually vibration-free (balancing quality G2.5 -G6.3) and can be installed on machine frames.

High-quality filtration allows treated air to be recycled directly into the building.
AFS cooperates with numerous manufacturers of machining equipment, and equips many original equipment installations.
The AFS range comprises numerous models of different sizes, covering suction capacities from 400 to 16,000 m^3/h.

Depending on the layout and specific local constraints, the following selections are available:

- Left or right-hand suction
- Inlet suction flange orientation
- Air outlet in all directions
- Display of filter clogging
- Air flow control
- Position and center distance of support feet
- Power supply
- Filtration configuration
- RAL color

he AFS units are fitted as standard with EC motors or frequency inverters. **This allows the suction flow rate to be adjusted as required.**

This offers the following advantages:

- Constant flow rate regardless of filter clogging.
- Adaptation of flow rate and motor speed to different working conditions.
- Flow rate regulation enables substantial energy savings and longer filter media life.
- Retain reserves for future increases in throughput to accommodate new or larger machines, save energy and heating costs.

Unlike many competitive products, all filtration stages are integrated into the same casing.

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Activated charcoal adsorption

For post-treatment of gaseous pollutants and odors.

AFS system with activated charcoal post-treatment stage:

The intrinsic composition of lubricants or the transformation of their components generate gaseous pollutants and odors. These odors can be significant and unpleasant.

In certain cases, AFS filtration units can be equipped with an additional activated carbon treatment stage.

The AFS 400 C and AFS 1000 C units can treat 400 m^3/h and 1000 m^3/h respectively. Customized solutions are available for larger requirements. Please consult us for details.