

SYN AIR

AIR FILTER CLEANER
SUSTAINABLE FILTER CLEANING



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PROFESSIONAL AIR FILTER CLEANING

CLEAN FILTERS. SAVE COSTS. PROTECT THE ENVIRONMENT.

Dust particles created during the production process can significantly hamper the performance and service life of machinery and equipment. Furthermore, the health of workers is also jeopardised. Therefore, air filters that capture these contaminants are essential. When these air filters become dirty, they must be replaced or cleaned. With the SYN AIR AFC air filter cleaner, your air filters can be cleaned effortlessly and reliably.

WHAT?

Often machine air filters are seldom or insufficiently cleaned. The SYN AIR AFC air filter cleaner cleans your air filters professionally and efficiently in just ten minutes. All cylindrical and conical air filters can be cleaned in our SYN AIR AFC system.

HOW?

The round filter is removed from the machine and mounted in the SYN AIR AFC system. At the touch of a button, the filter begins to rotate in the chamber and is cleaned from the inside to the outside and from the outside to the inside by two lances fitted with air nozzles. The resulting dust is then collected by an external extraction system.

WHEREFORE?

The patented air filter cleaning system has already proven itself in numerous sectors of industry. The SYN AIR AFC system is suitable for all machine filters that are exposed to heavy amounts of dust and need to be frequently replaced or cleaned.

WHY?

With the SYN AIR AFC system, air filters can be used more often thus saving costs. During the fully automated cleaning process, staff can attend to other tasks and are not exposed to harmful dust since cleaning occurs in an enclosed space. The environment is also protected thanks to the sustainable use of filters.



ADVANTAGES

ALL ADVANTAGES AT A GLANCE



COSTS

Instead of constantly investing in new air filters, costs can be saved by cleaning and reusing contaminated filters. Regular filter cleaning results in fewer machinery malfunctions. Thus, less maintenance work is required, and your equipment is more durable. During cleaning, employees can complete other tasks and needn't clean filters themselves. Damages due to punctual loads, such as when knocking or blowing out, can also be avoided.



HEALTH

Blowing out or knocking out by hand is not recommended. Much of the dust created by a number of production processes in industry, construction and many other sectors pose health hazards. In contrast to manual filter cleaning, our SYN AIR AFC system cleans filters in a closed chamber. This means there is no health risk for your employees.



ENVIRONMENT

Thanks to environmentally friendly filter cleaning, the environment is protected from fine dust and particle emissions. Resources are also conserved by reusing air filters, and the ecological footprint is minimised. As a result, sustainable and environmentally conscious management is possible in the long term.

SYN AIR AFC

THE COST-SAVING & ENVIRONMENTALLY FRIENDLY AIR FILTER CLEANING SYSTEM

With its powerful cleaning quality and simple, effortless handling, the air filter cleaning machine is quite impressive. Our patented air filter cleaning system is already in use in many different sectors of industry.

The SYN AIR AFC system removes all dry dust from the air filter within ten minutes. Operation of the equipment is carried out via a user-friendly SIEMENS touchpad. Individual cleaning programmes, which are specially customised to the contamination of the filter, can be pre-installed.

The cleaned air filters can be reused many times over, saving resources and costs. Due to the fully automated cleaning process, staff needn't clean filters manually and thus avoid hazardous dust. Thanks to the sustainable use of air filters, the environment is also protected.

An additional special feature: The SYN AIR AFC system can be modified as needed and adapted for taller filters for an additional charge. Optional inspection lamp, rotary cone, dust tray, or adjustment for conical air filters can also be installed.



FUNCTIONALITY

SYSTEM IN DETAIL

AIR SUPPLY

The combination of air supply and extraction generates a closed air flow system, guaranteeing effective removal of the blown-out dust.

NOZZLES

The SYN AIR AFC system is equipped with external and internal cleaning nozzles. Both are vertically inserted into the air filter. These open the pleats of the filter and thus ensure optimum cleaning results.

CLEANING

Air flows through the internal lance. A motor in the drive chamber moves the internal lance up and down, cleaning the filter from the inside to the outside. On the external lance, there is a rotating nozzle which also moves from bottom to top. In order to open the pores of the filter, which is then cleaned again from the inside to the outside.

EXTRACTION

Dust is removed via an external extraction system. Due to the downward suction effect, the dust falls into the dust tray and is ideally suctioned away.

MAINTENANCE

The SYN AIR AFC system is exceptionally low maintenance. The service life of the machine is over ten years. The requirements for durability are proper care and maintenance as well as correct operation of the equipment. An assessment of the ATEX guidelines must be carried out annually.

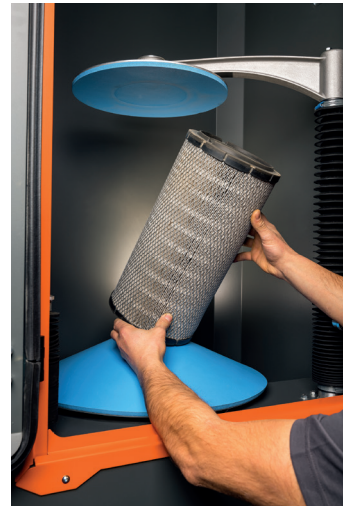


OPERATION

EASY INSTALLATION & EFFORTLESS HANDLING

Commissioning the SYN AIR AFC system is simple and straightforward. After a short training session, your employees will be able to set all options pertaining to cleaning cycles or dwell time of the nozzles (at the end positions), thereby achieving perfect cleaning results.

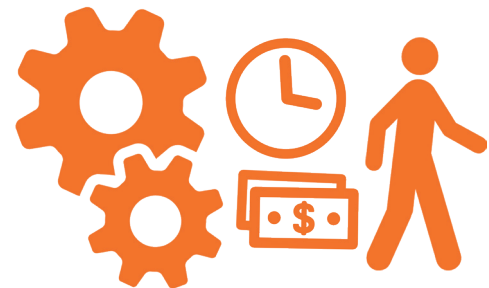
- 1** Switch the SYN AIR AFC system on.
- 2** Place filter in the chamber.
- 3** Close the safety doors.
- 4** Select cleaning programme.
- 5** Press the start button.



EFFICENCY & WORKFLOW

The cleaning process lasts approximately ten minutes per filter. During the fully automated cleaning process, your employees can attend to other tasks.

After the cleaning, the air filter is removed from the cleaning chamber. The system is immediately ready for further operation, and another filter can be inserted for cleaning. Five air filters can be cleaned per hour.



TECHNICAL DATA

SYSTEM DETAILS

Construction	Sheet metal housing
Dimensions	820 x 920 x 2 600 mm (standard design)
Weight	300 kg
Supply voltage	400 V
Compressed air supply	6 - 8 bar
Compressed air connection	Euro compressed air coupling
Recommended air volume flow	300 l/min
Suction connection	150 mm
Recommended suction capacity	1 500 m ³ /h
Safety doors	With safety guard locking
Function query of the suction	Via differential pressure sensor
Operation	SIEMENS TOUCHPAD CONTROLS
Dust type	Dry dust
Cleaning time	approx. 10 min

FILTERS DETAILS

Filter height	100 - 750 mm (optional up to 1 200 mm)
Filter form	Cylindrical, conical
Maximum exterior diameter	500 mm
Minimal interior diameter	with locked internal lance & rotary cone < 100 mm)

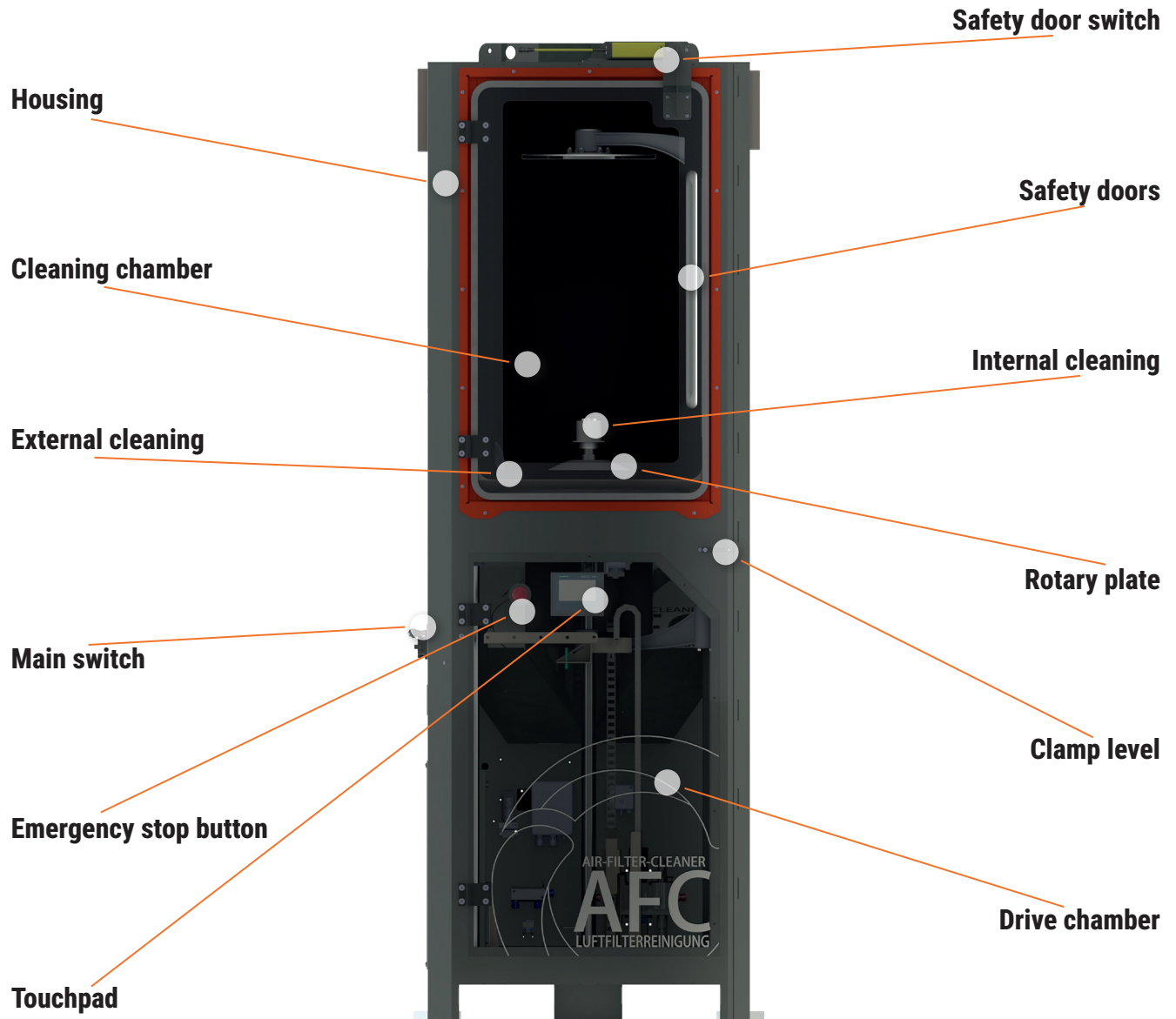
ATEX

To prevent explosive dusts from igniting during cleaning, the filter chambers of the SYN AIR AFC system are equipped according to the ATEX guidelines.



DESIGN

SYSTEM COMPONENTS



SYN AIR DVC

THE RIGHT ACCESSORIES

The SYN AIR DVC dust vacuum cleaner is ideally suited for the extraction of granulates and dry dust and includes a collection container with a 39-litre capacity. The dust extraction system guarantees optimum safety and hygiene for the workspace environment. Thanks to the built-in, high-performance fan, the vacuum's energy use and operating costs are extremely low.

TECHNICAL DATA

VACUUM DETAILS

Motor	2,2 kW, 400 V, 50 Hz
Max. negative pressure	35 mbar
Max. volume flow rate	25 000 l/min (1 500 m ³ /h)
Intake manifold	150 mm
Dimensions	650 x 900 x 1 850 mm
Weight	92 kg
Sound volume	79 dB (A)
Hose length	3 m
Hose diameter	150 mm



EQUIPMENT

OPTIONS FOR THE AFC SYSTEM

SPECIAL DIMENSIONS

The standard SYN AIR AFC system can accommodate air filters with a minimum height of 100 mm and a maximum height of 750 mm. If you have filters that are taller than 750 mm, the system can be adjusted upon request to handle larger dimensions up to a maximum of 1200 mm.

INSPECTION LAMP

An inspection lamp can be installed for the follow-up inspection of filters. The LED light bar is located on the back of the machine. The inspection lamp can be extended, and the air filter placed on top of it. When the filter is illuminated, you can see if it has been sufficiently cleaned.

ROTARY CONE

For air filters with a smaller interior diameter, we also have the right solution. For air filters with an interior diameter of less than 100 mm, the internal lance is locked and fitted with a rotary cone. The internal lance can be locked and unlocked using the settings on the SIEMENS touchpad.

DUST TRAY

If air filters are particularly contaminated on the inside, a dust tray can be installed similarly to the rotary cone. This plate makes it easier to automatically extract the dust inside the machine.

ADJUSTMENT FOR CONICAL FILTERS

With conical filters, the cleaning nozzles do not run evenly to the filter. Using a technical adjustment, conical filters are inserted parallel to the cleaning nozzles. In this way, optimum cleaning results can be achieved.

OPTIONS FOR THE DVC EXTRACTION SYSTEM

H14 HEPA FILTER

The SYN AIR DVC vacuum cleaner can be fitted with a H14 HEPA exhaust air filter. This filter can be used to extract harmful dusts with an H classification. Hazardous, flammable or explosive dusts (all with MAK exposure limits of less than 0.1 mg/m³) as well as carcinogenic or pathogenic substances from Groups I, II and III are absorbed.

ATEX VERSION

If explosive dust is released in your company, the external extraction system must comply with ATEX guidelines. Therefore, the SYN AIR DVC extraction system is available in both the standard version and ATEX version.

REFERENCES

WHAT OUR CUSTOMERS SAY



MOCOM

“With the SYN AIR AFC system, we are resolutely moving toward sustainable production. By reusing filters, we are not only protecting the environment but also optimising our costs. A step that shows that efficiency and responsibility go hand in hand.”

- MOCOM Compounds GmbH & Co. KG



coop

“The issue of sustainability was a key reason for us to purchase a SYN AIR AFC system. Thanks to the reusable filters, we have already been able to save a lot of money!”

- Coop Genossenschaft



KOMPTECH

“Thanks to the purchase of a SYN AIR AFC system, our air filters are cleaned in a sustainable and environmentally friendly way!”

- KOMPTECH GmbH



BERGER
ROHSTOFFE

“With the SYN AIR air filter cleaning system, our filters can be cleaned in an environmentally friendly way and reused to save resources!”

- BERGER Rohstoffe GmbH

ABOUT US

SYNERGY FROM EXPERIENCE AND INNOVATION

SYNEX TECH GmbH, based in Bad Goisern, Austria, was founded in 2010. SYNEX TECH GmbH is a special machinery construction company with a highly qualified team. We offer our clients a wide range of services, from planning and construction to commissioning at the customer location. We also offer comprehensive customer service and maintenance service.

Our focus is customised solutions for individual requirements, including prototype building and special designs. The SYN AIR air filter cleaning system is an outstanding example of our ability to develop innovative and customised solutions for small series production.

Thanks to our many years of experience, we have already implemented numerous successful projects in various sectors, including the automotive and plastics industries, the polystyrene and styrofoam industry as well as the metal working and wood construction industries. Our expertise lies particularly in automation technology, where we develop innovative solutions needed to optimise the production process and increase efficiency.





DO YOU HAVE ANY QUESTIONS?

Our team is pleased to be at your disposal by e-mail office@synex-tech.at
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VISIT OUR WEBSITE



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SYN AIR

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