

# Filter Pressurization Systems

To protect machine operators in contaminated environments



# The air we breathe is vital

*Clean air is critical for peoples health, especially in workplaces in polluted environments. A BMAir pressurised filter system cleans the air entering the control cabin and thus ensures optimal protection for the occupants. Furthermore, the system offers stae of the art monitoring and warning signals. Optionally, the control unit can log all recorded cab data so that you can control the work environment and can respond adequately to any exposure to toxic substances.*



## Operation of the BMAir pressurised filter system

- The BMAir pressurised filter system is mounted on the roof of the cabin or on the deck of the machine.
- The polluted air is sucked in through the inlet of the system.
- The coarse dust particles are first filtered out, followed by fine dust using a HEPA filter.
- Gases and vapors are then removed by the active carbon filters.
- The blower drives the filtered breathing air into the cabin.
- The monitoring system checks, the cabin overpressure, the lifespan of the filters and optionally the air quality by means of additional sensor (s).
- Excess air exits the cab through any remaining seams and cracks.
- A green light on the roof is optional and indicates that the system is fully functional.

# Employers; Being safe and healthy is the standard

## Choose the best for your employees

If you truly care about the health of your employees, then we a common goal. We don't pretend to care about the health of your employees; we are truly passionate in what we do. Because that is what your employees expect of us, not just because it is a legal requirement but simply because they deserve a healthy work place.

And because a safe work place should simply be the standard. Do you think the same way as us? As the worldwide market leader in pressurised filter systems, we are happy to introduce you to our systems and filters.

BMAir systems are not just a socially responsible choice, but also a very

smart choice. Completely attuned to your RI&E; the health risks are drastically reduced. Our data-logging modules record all the air values. BMAir offers indispensable tools so your employees can continue working in a healthier and safer environment. For you this means managing your business on a sustainable way.



# A solution for every working environment



## Composting

Composting plants and biomass processors accept large quantities of organic waste on a daily basis. When processing organic waste, machine drivers and operators are exposed to large quantities of hazardous gases, vapours and fungi. Contact with these substances, through the airways or even the pores in the skin, can lead to serious health problems. The company and the machine operators should want to prevent this at all times.



## Storage & transport

Drivers are often exposed to peaks in the concentration of polluted substances, such as when a polluted substance is stored in a container. At these times, a properly protected cabin with purified air is of crucial importance. Exposure to even the smallest concentration can be life threatening in the short term. These dangers should never be underestimated. Operator health is our top priority.



## Remediating

Dismantling derelict factories, tar pits or waste sites is not without risk. On the contrary, machine operators without proper protection are exposed to extreme health risks. The slightest exposure can already lead to chronic fatigue, headaches and concentration problems. BMAir systems and filters guarantee that operators can work more safely in these types of conditions.



## Mining

Mining machine operators are automatically exposed to lots of dust. Many substances are relatively harmless in small quantities. However, in large quantities these substances can be dangerous. In addition, substances such as quartz (respirable silica) are always dangerous. Quartz particles are super fine, nearly invisible and can penetrate deep into the lungs. The long-term consequences of this are often serious and even life threatening. Protracted contact moments are a major health risk.



## Demolition

Various substances are released during demolition work. Some are harmless, while others are hazardous and even extremely toxic. When you work with insufficient protection and particles are released, you expose yourself un-necessarily to these hazards. Airways and eyes are irritated, or even worse. In addition, the equipment in the cabin is also affected. Prevent problems and ensure filtered air for machine operators.



## Recycling

Recycling sites are ideal places for fungi, bacteria and viruses to multiply. They are released into the air in great quantities during collection, transportation and re-handling of the waste materials. This leads to high concentrations of polluted air in a short time. These peak moments are dangerous for machine operators who process the waste. Even exposure to small quantities can lead to serious health problems, sick leave or even disability.

# Filter Pressurization Systems

**BMAir has a wide range of pressurised filter systems. Each BMAir system can be equipped with a filter package tailored to your specific working environment. In combination with our control systems, there is a solution for every workplace. Our experts have extensive knowledge of which system best suits your work environment and can advise you in combining the system with the appropriate control system and filter package.**



## BMAir MAO-2

Nowadays, construction machines are more streamlined and have limited space for the installation of a pressurised filter system. The BMAir MAO-2 was introduced for this purpose. Smaller, powerful, mountable in various positions and suitable for practically every construction machine.

- Weight: 35 kg without filters
- Dimensions: 626 x 355 x 384 mm (L x W x H)
- Filter capacity : 23 litres
- Material: Stainless steel

**New!**



## BMAir MAO-3 Cab Guard

New in the BMAir collection are the MAO-3 Cab Guard with PAC Smart Control. Specially designed for the increasing demand for compact and smart systems. Under the modern, robust, plastic housing is a uniquely shaped self-cleaning HEPA filter with incomparable capacity. A compact, full carbon filter can also be installed within this unique concept. The new dimensions generate a filter contact time that is superior to the current products in the market.

The MAO-3 Cab Guard comes standard with the new PAC Smart Control (see page. 6). With the new generation of BMAir products, you can manage your supply of filtered cabin air without difficulty or worry!

- Weight: 24 kg without filters
- Dimensions: 496 x 379 x 529 mm (L x W x H)
- Filter capacity: 41 litres
- Material: Stainless steel / Plastic



## BMAir MAO-6HC

The streamlined design makes the BMAir MAO-6HC extremely suitable for mounting on the cabin roof. Nevertheless, the compactness of the system does not come at the expense of its capacity.

- Weight: 40 kg without filters
- Dimensions: 828 x 725 x 255 mm (L x W x H)
- Filter capacity: 46 litres
- Material: Zincor / Plastic



## BMAir MAO-7HC

The BMAir MAO-7HC Truck is especially designed for the transport sector, because a robust pressurised filter system is necessary to thoroughly deal with pollution and safely transport hazardous substances.

- Weight: 40 kg without filters
- Dimensions: 828 x 725 x 255 mm (L x W x H)
- Filter capacity: 46 litres
- Material: Zincor / Plastic



### BMAIR MAO-8

Machine operators who work on smaller construction machines in an averagely polluted environment also deserve a safe work environment with optimal protection. The BMAIR MAO-8 is very compact and suitable for mounting on smaller machines, without compromising the view.

- Weight: 50 kg without filters
- Dimensions: 756 x 449 x 461 mm (L x W x H)
- Filter capacity: 47 litres
- Material: Stainless steel



### BMAIR MAO-12

Do you carry out work activities in very dusty environments? Dust does not stand a chance against the BMAIR MAO-12, partly thanks to the unique and patented vacuum system that sucks air from the bottom of the unit.

- Weight: 45 kg without filters
- Dimensions: 710 x 440 x 460 mm (L x W x H)
- Filter capacity: 38 litres
- Material: Stainless steel



### BMAIR MAO-22

This system protects machine drivers against work activities in the dustiest environments that include high concentrations of gas and vapours. The MAO-22 uses the same patented vacuum technology as the MAO-12.

- Weight: 45 kg without filters
- Dimensions: 827 x 677 x 343 mm (L x W x H)
- Filter capacity: 74 litres
- Material: Stainless steel



### BMAIR ASYST Uni 112

In case of extreme peak loads in the concentration of gases and vapours or a temporary lack of oxygen in the surrounding air, the patented breathing air assistant system BMAIR ASYST allows you to continue working under safe conditions.

- Cylinder capacity breathing air: 15.000 bar litres
- Weight: 200 kg without filters
- Dimensions: 1630 x 830 x 560 mm (L x W x H)
- Material: Stainless steel

# Controllers

A pressurised filter system and its filters offer machine drivers and operators optimal protection. A controller acts as a means of control and alerts the user on time when caution is called for. BMAir offers controllers in various designs for optimal safety. This way, machine drivers and operators are always optimally equipped in every specific situation.

**New! Pac Smart Control**  
Designed for optimal ease of use

Easy to install high-quality sensitivity air quality sensor



Easy to read colour screen with automatic day, night mode

IoT ready, prepared for the real-time future

Easily order filters

Easy operation

Maximum security through integrated data logging

Forward system information and events

Wide data possibilities through digital Rx / Tx connection

Maintenance messages with QR code generator

Send event log

All data can be read clearly on the 3.5" OLED screen. The simple operation also ensures that the operator can send all information

via a QR code with their own smartphone. No more searching for filter part numbers, inspection dates and serial numbers. Secure event

logging is standard. The PAC Smart Control is IoT ready so that real-time data is possible.



**TAC / TACS**

- Automatic start-up and overpressure control
- VOC sensor with PPM indication
- Automatic filter recognition



**OCS040D / OCS240D**

- Automatic start-up and overpressure control
- Data logging
- Multiple gas-specific sensors



**BAC / BACS**

- Automatic start-up and overpressure control
- Integrated design for roof hatch
- Alarm message VOC exceedance

# Combifilters

*The BMAir filters ensure that machine drivers work more safely than ever, even in polluted work environments. Especially in polluted environments. Because our advanced and patented technology make our systems and filters exceptionally effective. Even under the harshest conditions.*

## BMAir Combifilters offer protection against:

- Benzene (Vapours from solvents and hydrocarbons (e.g. diesel))
- Asbestos (Toxic particulate matter, asbestos silica dust and heavy metals)
- Dredger (Vapours from dredging spoil such as bacteria, toxic particulate matter, heavy metals and H<sub>2</sub>S)
- ABE/K (Vapours such as H<sub>2</sub>S and ammonia. (caution: not for use with cyanides such as HCN))



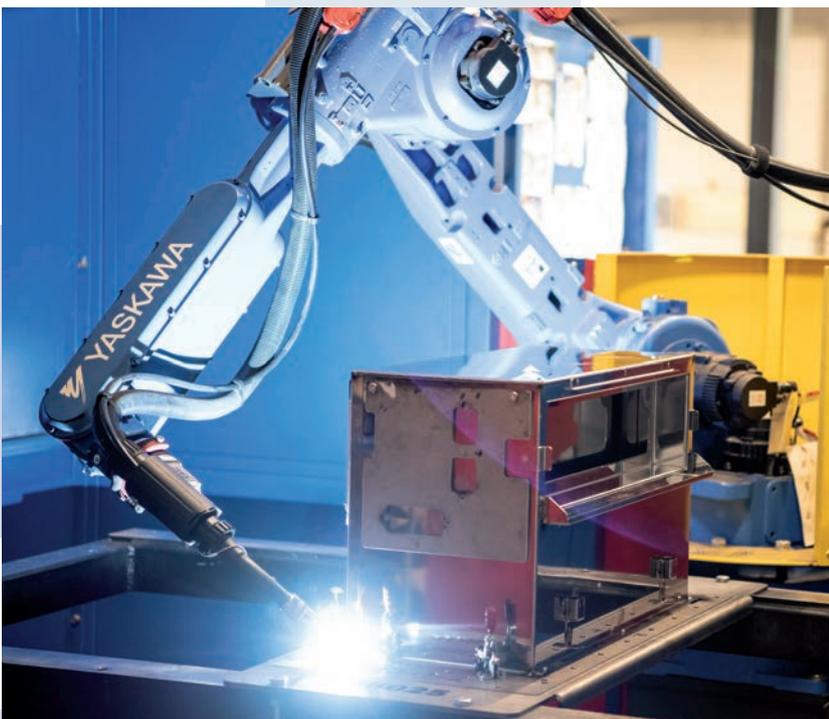
- ABEK (Vapours from cocktail of toxic substances. In accordance with EN14387)
- Ammonia/GFT (Vapours from waste and composting such as spores,

bacteria, viruses, organic and ammonia)

- For various gases, vapors and/or applications customer-specific options

Thanks to the automatic filter recognition you always know which filter is installed and whether it needs to be replaced. This prevents the unit from having to be opened unnecessarily and harmful substances being released.

## Innovation and passion



We use our knowledge and enthusiasm daily to develop even better systems and filters. The collaboration with partners from various sectors provides innovative solutions that we share and make available.

Are you looking for a customised filter or solution? We regularly deal with bespoke customised work. We are happy to work along with you.

# Facilitating health is our goal

For 25 years, our goal has been to provide them with the cleanest air possible at all times, every minute and every second of their workday. We never compromise when it comes to breathing air; after all, it is our human right.

The integrity of us as an organisation depends on the quality of our products. Therefore, it is of the

utmost importance that our pressurised filter systems are of the highest standard. Only then can we achieve our goals: "the cleanest air possible for every machine operator who works in a polluted (mobile) work environment".

As the market leader in the pressurised filter systems market, we are getting closer to our objective

every day. Many operators are already working with our pressurised filter systems.

Yet, there is still a long way to go. Too many employers, commissioning parties and machine operators can be light-hearted about the long term health risks. A good protection should be common practice.



**Clean air in your cabin is of vital importance!**