Installation and User Guide for BioMax Filters

This guide covers the BioMax 100, 300, 600, and 5000 models, including installation types and operational recommendations. It also includes layout suggestions and general guidelines for proper use and maintenance.

Each model is delivered with custom filter mats and is available in passive or active operation, depending on the need for ventilation and control. Systems can also be combined with sensors and monitoring for optimal performance and documentation.

Oversigt over BioMax-serien

Model	Application	Capacity (depending on conditions)	Installation Type
BioMax 100	Small pits and pump stations	100 m^3/h	Freestanding / pipe connection / louvers
BioMax 300	Residential areas, sewer installations	225 m^3/h	Freestanding / pipe connection / louvers
BioMax 600	Treatment plants, industrial environments	600 m^3/h	Stationary, modular
BioMax 5000	Biogas plants, municipal facilities	5000 m^3/h	Stationary, lifted by crane/forklift

Installation Types (BioMax 100 and 300 Models)

BioMax 100 and 300 are available in three main variants, which can be adapted to the specific installation scenario:

Pipe connection – tilsluttes direkte i et lukket rørsystem og sikrer effektiv og kontrolleret luftstrøm.

Louver vents (passive exhaust) – Air is released through top-mounted louvers without the use of a fan. Ideal for installations with natural draft.

Fan-assisted – Active extraction provides stable airflow, even in cases of low natural draft or long pipe runs. This version is typically used in installations with high H_2S concentrations or where the distance from source to vent is significant.

Choose the appropriate variant based on air pressure, distance, and the level of odor neutralization required.

Installation of BioMax 600 and 5000

Lifting Instructions (BioMax 5000):

- Weight: 563–745 kg
- Dimensions: 2329 x 1237 x 2417 mm
- 4 lifting eyes on top
- Use crane or forklift (minimum capacity 600–800 kg)
- Use lifting yoke and shackles for proper weight distribution
- Never stand under the unit during lifting

Placement:

- Place on flat and stable foundation
- Avoid low-lying areas where water may collect
- Ensure easy access to drawers and hatches for maintenance

Opstart og drift

To ensure optimal biological activity from the beginning, it is recommended to apply starter fluid with microorganisms directly to the new filter mats before commissioning. The liquid should be distributed evenly over the entire top drawer so that all filters are activated uniformly.

After installation, airflow must be checked:

- For passive installations (without fan), there should be visible draft – this can be tested with smoke.
- For active installations, make sure the fan direction and suction power are correctly adjusted according to the system's specifications.

The filter normally achieves full purification performance within a few days, but biological activity stabilizes within the first 1–2 weeks. During this period, it is important to avoid opening drawers and doors so that

Vedligeholdelse

To ensure optimal purification performance and long filter life, the unit should be maintained regularly. This includes rotating the drawers with filter mats approximately every three months.

Procedure:

- First, remove the mats from the bottom drawer
- Then shift the remaining drawers one position down
- Place new, evenly distributed mats in the top drawer and apply a fresh bacterial culture

This rotation system ensures stable and uniform biological activity throughout the filter volume.

Doors and drawers should be handled gently during servicing. Avoid forcing components in or out, as this can damage seals and affect the system's functionality.

Safety

- Use personal protective equipment when lifting and servicing
- Always inspect lifting equipment before use
- Keep distance from the unit during lifting
- In case of doubt – contact professionals or MBS