

MICROTEC

Highly efficient multifunctional system based on a dry steam delivery principle for treatment of olfactory problems.





BIOTHYS

YOUR REFERENCE IN ODOR NEUTRALIZATION SOLUTIONS

Biothys[™] is specialized in consulting, design and produce world wide application of individual solutions of smell neutralization for all sectors. Our competitive advantage is the result of 30 years of experience in this sector. This allows us to offer customized and turnkey solutions for all sectors. **Biothys[™]** technologies are patented and used in many countries all over the world.

- TURNKEY SOLUTION BASED ON YOURS NEEDS.
- EXPERIENCED DESIGNERS, ENGINEERS,
- TECHNICIANS AND SALESPEOPLE.
- SIMPLIFIED SOLUTION CUSTOMIZED TO MEET YOUR NEEDS.
- EASY INSTALLATION AND MAINTENANCE.

CUSTOMIZED

ECO-FRIENDLY BIOTHYS™ offers environmentally friendly, sustainable treatments. BIOTHYS™ is an expert consulting agency, analyzing your situation and thus being able to offer an individual, customized solution.

SAVINGS

BIOTHYS™ offers savings in installation and reduces investment costs to a minimum.

TRENDSETTING BIOTHYS™ offers

technologies which are not based on the application of sprayed liquids, allowing for homogenous, inobstrusive treatments.

HIGHLIGHTS OF THE MICROTEC TECHNOLOGY



EASY MAINTENANCE



EASY INSTALLATION



PERMANENT TREATMENT

BIOTHYS™ TECHNOLOGY APPLICATION FIELD



WASTE

BIOTHYS[™] successfully treats waste deposit sites, waste storage, garbage bins, trucks and many more. Our solutions range from the treatment of small household waste bins to large waste disposal sites. Especially for municipalities we can offer a simple and comprehensive solution.



SERVICE SECTOR BIOTHYS™ offers unique and advanced solutions for hotels, airports, smoker lounges and rest rooms



PETROCHEMISTRY BIOTHYS™ treats smells of refineries and oil storage, meeting explosion protection requirements (EX-areas)



TRANSPORT

BIOTHYS[™] offers perfect solutions for trains, airports, VIP lounges, buses, stations and many more



INDUSTRY

BIOTHYS™ as key partner for all industries neutralizes odour emissions from production and storage sites



WASTE WATER

BIOTHYS™ is an expert in all areas of waste water treatment, industrial and urban sites, canals etc.











The **MICROTEC** device is highly efficient multifunctional system based on a dry steam delivery principle for treatment of olfactory problems in outdoor environments. In the process, **BIOTHYS™** molecules are atomized into very small particles to create a dry steam that behaves like a gas. This process is particularly interesting for its very strong treatment efficiency, for the neutralization of strong olfactory intensities.

This technology is a process based on direct gas-to-gas treatment, used in the treatment of olfactory problems. The advantage of, in addition to the low consumption of concentrates, is the ability to neutralize different types of smell and the automatic adjustment according to the intensity of the smell.

MICROTEC devices use exclusively Exair -h/VS range, in pure and undiluted form. The Exair -h/VS range, specially created byBIOTHYS[™] is a powerful odor inhibitor with a wide range of action.

The distribution of the active component in the form of micro-particles at low pressure is provided by Venturi nozzles coupled with an air compressor. According to the importance of the perimeter or volume, a fan or multiple fans can be installed.

The **MICROTEC** process can be controlled as needed and desired. Through the micronization, a very high contact surface is achieved, which ensures a significant increase in the reactivity of the active agents with the odorous substances in the air.

MICROTEC and are provided in different designs which differ in their treatment capacities, targeted area of use and size.

MICROTEC 60/8 with isolation MICROTEC 60/8 with Fan

MICROTEC TRUCK with 2 nozzles **MICROTEC** TRUCK with 4 nozzles

MICROTEC devices are manufactured according to current technical rules, recognized safety standards and directives: machinery directive 2006/42/EG, low voltage directive 2006/95/EG and VDE regulations.

THE MAJOR FEATURES

Proven +30 years experience Effective: The system is 100% a gas-to-gas-treatme nt using dry fog

High Homogeneity: There is a maximum contact-surface between molecules and smell-contamined air

Non-intrusive-, the system aims to achieve olfactive silence nearly every Odour-problem can be solved Scalable

Energie efficient: Compressed air is the main source of operation, electricity is only used for control

> Flexible: Depending on the smell-emission, operation times can be optimized

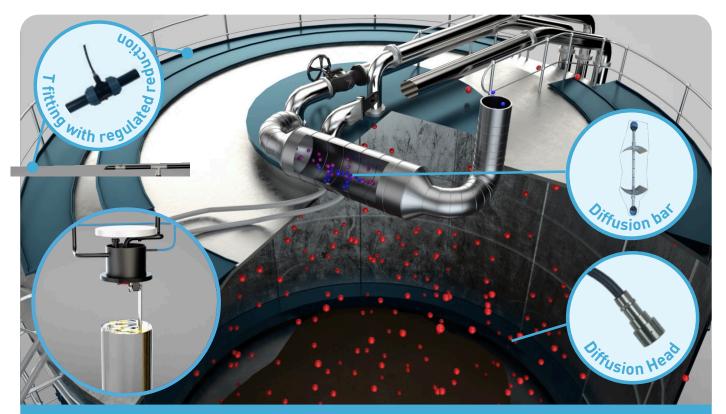
Free of disturbance: Hardly any noise, no splashing, no risk of germs Direct Treatment: The charged air will be treated directly, and not the substances which cause the smell

> High Efficency: With Biothys[™]-Compounds, the micronisation results in a much higher level of neutralisation due to the resulting higher contact with the surface.

Due to Micronisation, the effectiveness is EVEN higher than the molecules coming out of the Gelactiv.

Low maintenance

OF MICROTEC



DIRECT TREATMENT VIA SPECIAL PIPES WITH DIFFUSION BAR (optional)

MICROTEC DIRECT AND GLOBAL DIRECTIONAL TREATMENT

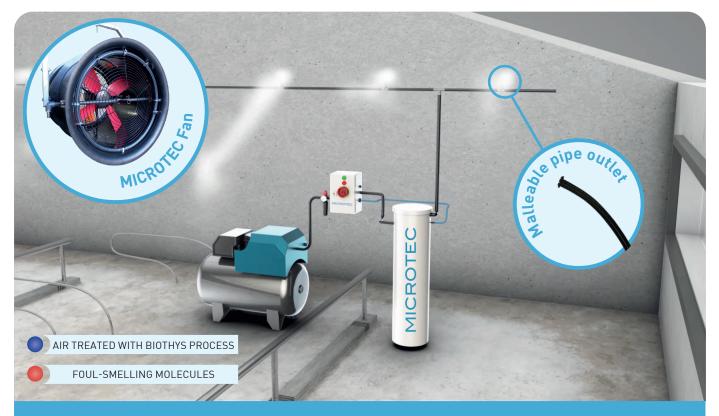


There are several **MICROTEC** devices available in order to meet your needs in direct treatment (via diffusion heads or diffusion bars) or global treatment (with **MICROTEC** FAN equipment or pipes with pipe outlet).





Ø 32 mm



GLOBAL TREATMENT WITH MICROTEC FAN (optional)



The **MICROTEC** FAN (optional) peripheral device, connected to a **MICROTEC** unit, ensures constant contact between the two gaseous phases by a continuous mixing of the volumes of air to be treated.

The peculiarity in the treatment of olfactory problems is based on a **BIOTHYS™** efficiency process "dry steam delivery principle - implementation technology **MICROTEC**" a high performance neutralization treatment in gaseous phase.



- High performance
- Oirect treatment in the gas phase.
- Continuous treatment (24 hours/day and 365 days/year) or sequential treatment with variable diffusion rate.
- Constant and homogeneous contact between the active ingredients and the malodorous molecules.
- Scalable treatable air volume m³/h
- Low investment and reduced running costs.
- Ecologically highly power efficient
- Nanometric diffusion resulting in a lower amount of product in the air but resulting in a larger exchange surface for greater efficiency.
- S Easy to install

MAIN OLFACTORY PROBLEMS THAT CAN BE SOLVED WITH THE BIOTHYSTM NEUTRALIZING POWER:

MICROTEC - POWERED BY EXAIR -h/VS RANGE

The range **EXAIR -h/VS** active components is recommended for the treatment of odorous gas emissions and comes in the form of several products whose responsiveness meets the different types of gaseous odors or structures they are confronted with. The quality of the implementation technique leads to the optimization and the performance of the treatment.

The **EXAIR -h/VS** range consists of powerful odor inhibitors with a wide range of action, starting from natural and/or synthetic plant essences, of a light yellow color. These products are insoluble in water and come in an oily form.

EXAIR -h/VS liquid, containing **BIOTHYS™** active agents, is "atomized" through a Venturi nozzle into small particles with a diameter between 0.1 and 10 µm. and transported through the pipes in the form of dry steam.

The active agents are released in the air in the form of dry micro particles through our **Microtec** devices.



EXAIR -h/VS is only to be used undiluted and exclusively with **BIOTHYS™** devices from the **Microtec** range.

Microtec devices use exclusively EXAIR -h/VS range, in pure and undiluted form.

The **EXAIR -h/VS** range is mainly used for the treatment of odors deriving from the degradation of organic matter (organic waste, municipal effluents, etc.) and is recommended for the treatment of waste storage plants, treatment plants, pumping stations, sewerage networks, etc.

EXAIR -h/VS is the main product with a wide range of neutralization capabilities, for targeted needs special recipes are available for special needs. The ideal product can be determined through a prequalification study or on site.

Main olfactory problems that can be solved with the **BIOTHYS™** neutralizing power: organic waste, green waste, organic waste, decomposition, waste water / rain water, heating oil, petroleum, industrial grease, hydrocarbons, asphalt bitumen, ammonia, hydrocarbons, faeces, urine.

The consumption of **EXAIR -h/VS** depends on the size of the surfaces to be treated, the intensity of the nuisance odor and the atmospheric conditions (temperature, air flow).



The malodorous molecules will react with the active agents to obtain an ideal neutralization. Our technology can provide, in some cases, a reduction of up to 95%.



The dry mist that is passing through the piping system, whether static or ventilated, acts as a vector for the distribution of the active agents in the air.

THE DEVICES



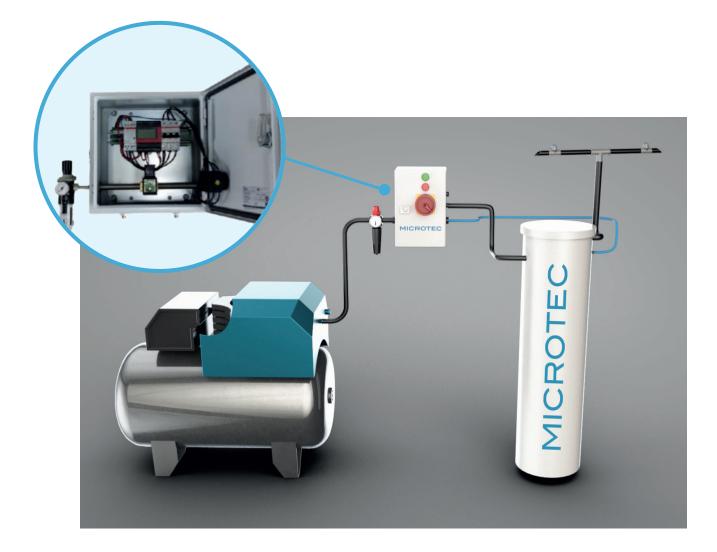
MICROTEC TRUCK

MICROTEC Truck with 2 or 4 nozzles is a gas-to-gas treatment device for odor nuisances which can be used on mobile objects (Trucks). Optional additional equipment is pressure regulator, electric valve, electric box for time/cycle control.

The output of inhibiting **BIOTHYS[™]** base is twice as high in the version with 4 nozzles than the version with only 2 nozzles.

Unless additional electric control is necessary only power supply is compressed air provided by customer.

DEVICE FEATURES	Pack Microtec Truck with 2 [4] nozzles
Consumption in continous service	0,0175 l/h [0,035 l/h with 4 nozzles]
Nozzles	2
Tank capacity	4 Liter
Temperature Operation	5°C – 40°C
Storage	5°C – 40°C
Power Supply	Compressed Air 1,5 bar



TANK MICROTEC 60/8 WITH ISOLATION (optional with Fan)

MICROTEC consists of a painted sheet steel box in which a digital timer (Müller clock) is mounted for operation control and a 40-liter tank (**BIOTHYS™ Exair -h/VS**). An optional version Microtec 60/8 with Fan is available.

Necessary Power supply is 230 V / 50 Hz (400V/16A for optional version with fan) and compressed air 1,5 bar via which is supplied by the customer's own factory line or a dedicated compressor.

DEVICE FEATURES	Microtec 60/8
Consumption in continous service	0,07 l/h
Nozzles	8
Tank capacity	40 Liter
Temperature Operation	5°C – 40°C
Storage	5°C – 40°C
Power Supply	230 V/ 50 Hz + Compressed Air 1,5 bar [400V/16 A with Fan]



MADE IN GERMANY, PERFORMING WORLDWIDE.

Biothys™GmbH

Gewerbestr. 6 | D-77731 Willstätt Phone: +49-7854-98954-0 Fax: +49-7854-98954-99 www.biothys.com info@biothys.com

Authorized Reseller





PRIME PRIMECERT GmbH CERT ISO 14001:2015 Registrierungsnummer: PRIMECERT 0023 0517 www.PRIMECERT.de