

# Exhaust Air Treatment Systems

## Overview of our UGN®-Systems



**UGN**  
UMWELTECHNIK

We have the products you need for immediate and effective pollutant, malodour, and corrosion control. Since 2002, our reliable processes have set standards. We have been continuously developing and optimising these processes over the years. This puts us in a position to provide you with tried and tested individual exhaust air treatment solutions.

All systems comply with the strict emission regulations and can be perfectly adjusted to production processes.

Our team of experienced experts is ready to assist you when it comes to detecting emission sources, measuring process parameters and opting for the perfect air treatment process.

### UGN® MODULE SYSTEMS

#### APPLICATION

Odour control and pollutant disposal in technical installations

#### FOR REMOVAL OF

- Hydrogen sulphide (H<sub>2</sub>S)
- Organic Hydrocarbons (VOC)
- Ammonia (NH<sub>3</sub>)
- Malodour

#### FEATURES

- Made of plastic material or stainless steel
- Modular concept for adjustment to different flow rates and malodour and pollutant concentrations

#### ... BIOFILTER AND HYBRID FILTER OPTIONS

All module systems are available as biofilter or hybrid filter customised to your specific requirements. The mode of action of the respective filter is defined by the type of filtering material.

**Der Biofilter ... filled with UgnCleanPellets® Basis** are particularly suitable for exhaust air with low and continuous loads of malodorous and pollutants as well as for manholes that are checked on a regular basis.

**Der Hybridfilter ... filled with UgnCleanPellets® S** are particularly suitable for exhaust air containing high, variable, or discontinuous loads of malodorous substances and pollutants with high peak loads.



### UGN®-BEGA-SYSTEM

#### APPLICATION

- Developed specifically for wastewater treatment systems such as sewage systems, sludge storage tanks, wastewater reservoirs, pneumatic pumping stations, bar screen systems, force main connecting structures
- active ventilation system for directed ventilation with built-in exhaust air purification



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## UGN®-BEGA-SYSTEM

### PROCESS CONCEPT

The UGN® BEGA System comprises the following services:

1. Engineering analysis and documentation of the actual state on site
2. Elaboration of measures for individual/customised process optimisation such as optimisation of ambient air, dosing, flow rate and pumping cycles
3. Design and sizing of the exhaust air purification system including all air ducts and regulating facilities
4. Delivery, installation and commissioning
5. Engineering support with (optional) dynamic adjustment

### SYSTEM COMPONENTS

#### Basic components:

- Engineering analysis, design and supportg
- UgnCleanPellets® filtering material

#### Individual components (according to your needs):

- UGN® hybrid filter module system
- Manhole biofilter, pipe filter, pipe filter cartridge
- Convection barrier, flexible segment valve
- Air trap



## EXHAUST AIR SCRUBBER

### Classic spray tower

- For moistening and separation of easily water-soluble exhaust air components

### chemische Wäscher

- For separation of poorly water-soluble exhaust air components
- Use of the scrubbing liquid for neutralisation in the same process

### Biological-chemical UGN® scrubbers

- Scrubber system developed by UGN®
- For eliminating hydrogen cyanide (HCN) from the exhaust air flow
- Complies with limit values, as confirmed by authorities

We can design, build, and operate these exhaust air scrubbers in combination with our module systems or as a standalone unit.



**We focus on finding the best possible solution for your specific situation.**

This may involve using other processes, systems and combinations from processes and technologies, which we are able to size, design and implement in cooperation with our partners.

Please do not hesitate to contact us and benefit from expert advice and innovative ideas.