BIOCAT-DUO-Scrubber

Your advantages:

- Separation of dust, formaldehyde, VOC and odours in a compact scrubber unit
- Minimum space requirement by integration of dust and bio scrubber in one system
- Resistant to blockings
- Low operational costs by energy-efficient execution with minimized pressure loss
- Economical at secure observance of clean gas values
- Low investment costs
- Low maintenance operation by high-quality components and materials (stainless steel or synthetic materials)
- No system-related fire hazard
- Efficient microbiological pollutant degradation also at changing conditions (temperature, raw gas concentrations, pH value)
- Easy access to all parts to be serviced without special equipment

Proven technology in the wood-based panel industry

THE BETTER WESP

BIOCAT-DUO-Scrubber

Combined scrubber for the separation of fibres and washable condensable hydrocarbons from the exhaust air of various production processes in the wood-based panel industry.

- Wood fibres from MDF dryers
- VOC
- Formaldehyde, methanol, etc.
- Odours

Advantages:

- Compact
- Efficient
- Reliable
- Low operational cost

Wessel Environmental Technologies

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Member of Deurotech Group
**BIOCAT-Scrubber**

High absorption performance and secure observance of clean gas values

- Exhaust air cleaning for applications, amongst other, in the wood-based panel industry (WBP etc.) for separation of dust, formaldehyde and water-soluble, biodegradable hydrocarbons (VOC).

- The two-stage BIOCAT®-scrubber consists of a pre-scrubber (DLP®-Dust scrubber) for dust separation and a main scrubber (BIOCAT®-scrubber) for separation of VOC and formaldehyde with separated washing water trap.

- In the DLP®-stage of the BIOCAT®-scrubber the dust content of the exhaust air is reduced by washing out below 10 μm size level effectively and energy saving. The acidic washing water is separated in a separate tank in a fibre separator. The water-re名 soluble VOC and the formaldehyde are absorbed from the washing water in a second cycle. A part of the absorbed components is already deposited by instead fixed microorganisms of the fibre. The remaining absorbed components are biologically degraded by the BIOCAT® reactor. This results in an increase of the separation performance of the scrubber and in a reduction of the total waste water quantity.

**BIOCAT-Scrubber stage**

- **Special fillers secure a constant high separation performance.**
- **Even distribution of the washing water over the entire filled bed.**
- **High efficiency droplet catcher according to BTV (federal environmental agency).**
- **Automatic cleaning of the droplet catcher to secure a minimum pressure loss.**

**DLP®-Dust scrubber stage**

- **Secure separation of coarse and fine fractions.**
- **Effective CIP®-cleaning of the dust separator - also during operation.**
- **High efficiency droplet catcher for effective separation of the water cycles.**
- **Automatic cleaning of the droplet catcher to secure a minimum pressure loss.**

**EXTENDED WATER TREATMENT**

for different requirements

- **Efficient water treatment by separated water cycles of DLP®-stage and BIOCAT®-scrubber stage.**
- **Minimum quantity of waste water and fresh water in water treatment.**
- **Effective degradation of pollutants to H₂O, CO₂ and compostable biomass.**

**CYLE WATER TREATMENT WITH BIOCAT-Reactor**

- **No impact on microorganisms by transfer of dust particles from the DLP®-stage.**

Benefit from the Wessel-effect: higher efficiency, less emissions, lower operational costs

- **CLEAN GAS**
- **DAMPING ZONE**
- **ABSORPTION ZONE**
- **RAW GAS**
- **FLOW SEPARATOR**
- **WASHING WATER TREATMENT**
- **DROPLET CATCHER**

DLP® - Dust Low Pressure | CIP® - Cleaning in Place