## John Cockerill Europe Environnement



# Biological solution for the treatment of odorous & VOCs emissions BioRec & Biomod biofilter

The biofilter is part of a sustainable development approach to the biological treatment of odours and VOCs, without using chemicals.

The biological treatment is based on a reaction of the oxidation of gaseous compounds in the presence of oxygen and of microorganisms, resulting in the formation of biomass, water and mineral products.

Recommended odour pollution control method in environments where the pollutant source is constant and temperature conditions mild for organisms.

Efficient and economical technology.

#### APPLICATIONS:

- sewage treatment plants
- soil treatment sites
- composting centres
- food, chemical, pharmaceutical and paper industries.

Several biomass media according to the effluent to be treated

Construction that is corrosion-resistant plastic, concrete, wood, etc.

Several possible choices of size, materials (cover, roofing, etc.)

low operating costs no reagent



Wood biofilter, household waste composting station



Concrete biofilter, sludge composting station

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#### Concrete biofilter



#### BIOMASSE MEDIA ALLOWING THE ATTACHMENT OF THE MICRO-ORGANISMS: 2 PRINCIPLES

#### **ORGANIC BIOMASSE**

- Large scope of processed molecules
- Outstanding efficiency
- Material lifetime: 3 to 5 years

#### Types of organic layer



(crushed bark and fir chips)



(maritime pine bark)



#### Types of sub-layer





**Biocos-SC** (fir chips)

**BioRacé-SC** (fragmented root wood)

#### MINERAL BIOMASSE

- Abattement of pollutants high loads
- Material lifetime: 7 to 10 years

#### Type of mineral layer



StonoSorb™ for biotrikling filter



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