



Economical - Ecological - Hygienic


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microniser

Presentation – Odour Destruction

Spraying odour-destroying product in large volumes

Dear Sir or Madam,

With a view to efficiency, Microniser SA offers a particularly fast and efficient odour destruction solution thanks to rotary atomisers that allow the treatment of large volume of air with a minimum of product and energy consumption. The sprayed product is a true odour destroyer provided by our partner *Phodé*:

- Without risks to human health or the environment
- Chemical action on pollutants (mineralization), unlike over-odours and perfumes
- Definitive odour neutralization reaction

Our common experience in the destruction of odours is already very successful and can be replicated in sectors as varied as public places and communities (metro, train stations, hotels, etc.), paper mills, waste treatment centers, wastewater treatment plants, slaughterhouses, industrial kitchens, agri-food, petrochemical, and many more.

In this document, we briefly describe the Microniser® system in order to illustrate its economic and ecological interest for product spraying, and mainly anti-odour products.

Microniser® equipment is offered for sale and long-term rental.

We invite you to contact us to discuss the integration of Microniser-Phodé technology into your operating site.

Yours faithfully,

Renier de Caritat
Managing Director

Pascal Dierickx
Product Manager

1. Technical description of the Microniser® rotating atomiser

A Microniser® atomiser is composed of a spray head, in the form of a cylindrical cage, mounted directly on the axis of the motor (Figure 1). The water is sent into the cage rotating at high speed and is fractionated into very thin droplets by passing through it thanks to the centrifugal force.

Atomisers are piloted with a set of control cabinets: Electrical & Hydraulic.

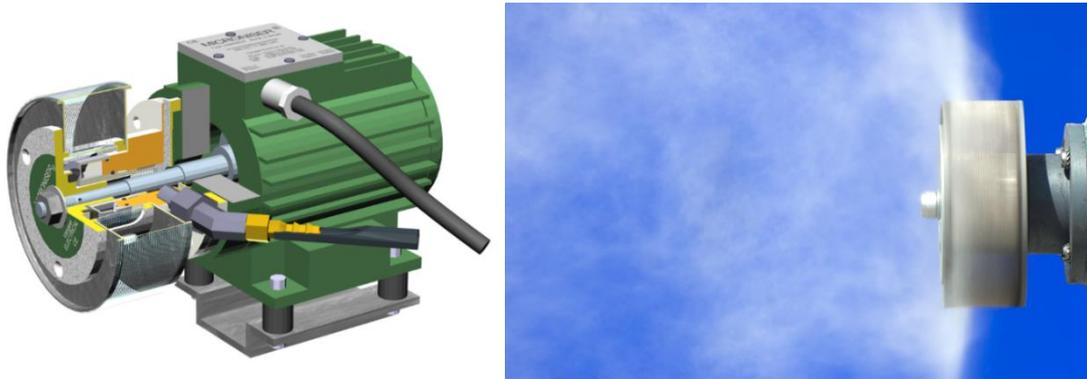


Figure 1: Exploded view of the Microniser® atomiser

With the Microniser® atomiser model fitted with a fan, it is possible to spray any type of liquid mixture directly into the ambience. This solution allows to handle large volumes that do not have a network of ventilation ducts.

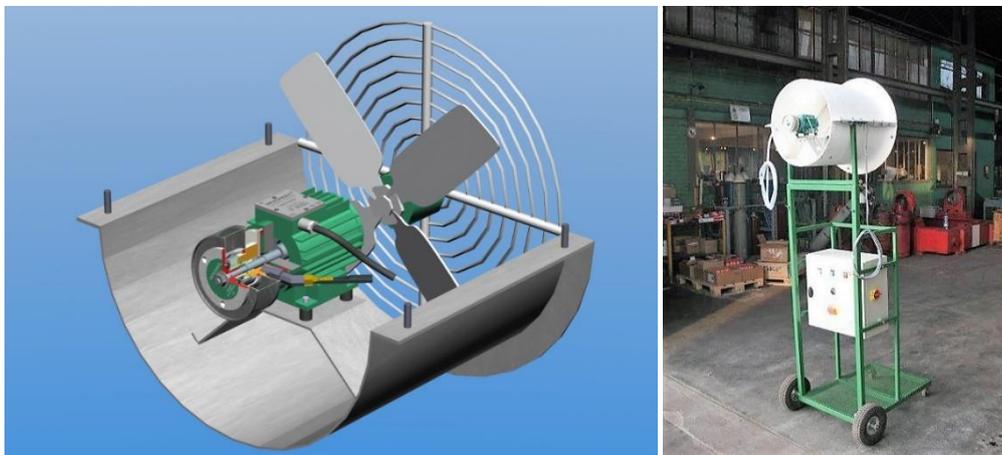


Figure 2: Microniser® atomiser with a fan for use in a direct environment + Microniser portable trolley

2. How the Microniser® anti-odour solution works

A dosing pump makes it possible to introduce the desired quantity of active product into the water which will be sprayed.

The Microniser® atomiser splits this mixture water-active product and sprays it into droplets that are thin enough to be easily absorbed by the airflow.

Microniser® sprays the precise amount of liquid required. All injected water is absorbed by evaporation into the air. There is therefore no recycling of water or stagnant water which involves risks of algal or bacterial proliferation. The Microniser® solution is therefore particularly hygienic and avoids any waste of water and active product.

Because of its design and its very low consumption, the Microniser solution is very economical, and limits the impact of the anti-odour treatment on the environment.

a. Advantages of the Microniser® solution

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- Very low electricity consumption
 - water at the pressure of the distribution network: neither pump nor compressor.
 - adiabatic evaporation
- Simplicity and speed of installation:
- Reliability: annual maintenance or every 3,000 hrs of use with a cost reduced to the minimum
- Optimisation:
 - Adjustable spray flow
 - Possibility of programming a spray schedule
- No waste of water
- No water recycling or stagnating water:
 - The system stays clean and without proliferation of bacteria. The system operates with municipal water or possibly treated with reverse osmosis or softener. The sprayed water remains pure and contributes to the conditioning of a quality air.
 - No bacterial pollution of the air (Legionnaire's disease)
 - No need for algacide treatment

The Microniser® system is also certified by the BREEAM®, recognition of a reduced environmental impact.

3. References

In addition to the anti-odour spray references, Microniser® systems are used for building humidification (HVAC), for adiabatic cooling and for dust removal.

Some illustrations of uses in odour destruction are presented below.



Figure 3: STIB Metro in Brussels: Bourse & Maelbeek



Figure 4: Derichebourg: waste treatment outdoors



Figure 5: Derichebourg: waste treatment indoors



Figure 6: Treatment of large interior and exterior volumes