



SMALL DROPS, BIG IMPACT: DUST MANAGEMENT





SMALL  
DROPS  
BIG  
IMPACT

# We protect our customers from dust and its consequences.

The topic of dust suppression has become enormously important in the last years – on the one hand, due to stricter requirements imposed by the authorities and on the other hand due to increasing environmental awareness.

At EmiControls we not only fight dust through competent consulting, plant engineering, and implementation of dust control systems but also offer a decisive added value for your company:

- › Cost and time savings: maximum results thanks to minimum use of resources
- › Happy employees, safe working conditions, and satisfied neighbors
- › Better image thanks to the implementation of sustainable measures

Small Drops  
Big Impact  
Since 2011

For more than 10 years we have been helping customers all over Europe to suppress dust emissions. We are happy to be walking this important path with you as well.



Patrick Danielsson (CEO)

A handwritten signature in black ink that reads "Patrick Danielsson".



SMALL PARTICLES, SERIOUS CONSEQUENCES:

# THIS IS WHY DUST SUPPRESSION IS IMPORTANT

Dust has various negative effects on people as well as the environment and can lead to serious consequences if you are exposed to it unprotected for a longer period of time.

How to properly abate dust depends on several factors.

## What is dust

Dust is the finest particles suspended in the air, created by mechanical processes.

Dust particles differ in size, shape, colour, chemical composition, physical properties, and their origin and formation.

Dust is practically omnipresent and has various sources: industry, transport, agriculture, fires, nature or volcanic eruptions.

## How is dust created

Dust can be generated by various natural as well as industrial processes, such as the mechanical processing of solids (e.g. crushing, surface treatment, abrasion, rearrangement) or through physical influences on solids (e.g. erosion by wind and weather).

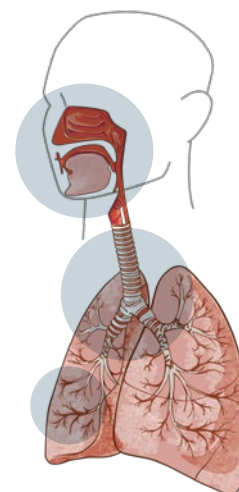
Dust can also be generated secondarily by chemical processes in the atmosphere.

In the industrial sector, we deal almost exclusively with dust generated from mechanical processing.

## What types of dust exists

In the context of workplace safety, it is important to know the following types of dust:

- › E-dust is the inhalable fraction of the dust and gets into the mouth and nose  
Size: the particles are smaller than 100  $\mu\text{m}$ .
- › Tracheobronchial dust reaches the upper airways.  
Size: The particles are between 5 – 10  $\mu\text{m}$  in size.
- › The alveolar dust (A-dust) reaches the alveoli (the smallest branches of the lungs) completely unnoticed.  
Size: The particles are smaller than 4  $\mu\text{m}$



## Effects of dust

The dust has effects on the environment as well as on people. If we talk about effects generated by dust, we do so from the perspective of environmental protection as well as work health and safety:

- › Long-term exposure to dust can lead to respiratory diseases
- › Heavy dust obstructs vision
- › Working tools are polluted by dust and damaged in the long term
- › Dust can be a cause of technical problems, e.g. overheating of electronics in the absence of ventilation, rapid wear of moving parts, and poorly functioning sensors

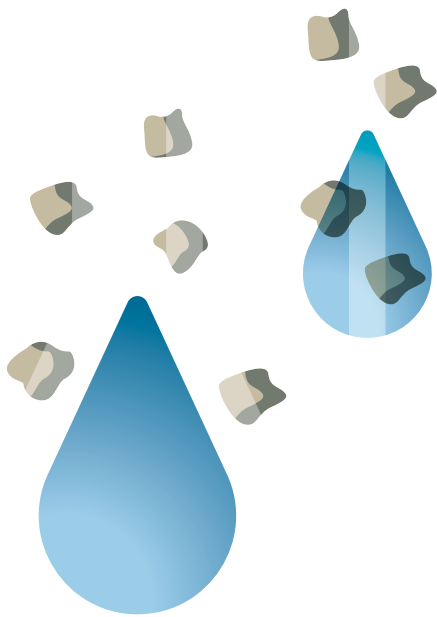


It is important to know the type of dust you are dealing with in your own company. That is why we cooperate with laboratories that offer professional dust analysis.

**Photo source: Particle Vision, our partner for dust analysis**

## SMALL DROPS, BIG IMPACT

# THE SECRET OF WATER MIST



The expectation on the effectiveness of dust suppression systems has increased enormously in recent years. But how does efficient dust suppression look like?

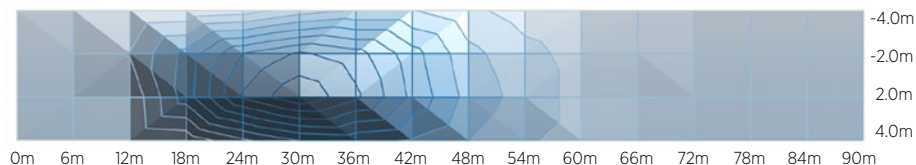
The most important element is the water mist itself: the fine mist moistens the dust, makes it heavy and brings it to the ground without forming puddles or muddying the material. Water mist has a double function in order to reduce unwanted dust emissions in the air:

- › by moistening the air, the dust floating in it is brought to the ground
- › by moistening the surfaces (material as well as floor), the “open surfaces” are sealed and dust does not get into the air in the first place

### The right droplet size

The optimal size of the water droplets is the key to success: dust particles bounce off the fast-falling large droplets, but stick to the smaller (slow-falling) droplets of similar size (see graphic). Conventional spray systems usually produce large, heavy water droplets that do not catch most of the floating dust in the air.

Thanks to sophisticated valve technology, our machines nebulize the water droplets into different sizes between 10 and 100  $\mu\text{m}$ . As a result, our solutions for dust suppression can take on any type of dust and adapt to a whole range of conditions thanks to full control of the water flow rate and droplet size.



The graphic shows how the V22 dust controller distributes the water.

### The correct distribution of the water mist

Another crucial point for successful dust suppression is the optimal distribution of the water mist.

The amount of dust in the air is specified as [ $\text{mg}/\text{m}^3$ ]. Through many years of experience as well as tests and trials with independent institutes, we know exactly how much water per  $\text{m}^3$  we need to use in order to combat the dust concentration (per  $\text{m}^3$ ).

This means: once we have defined the source of the dust, we know exactly how to position our machines to knock down the dust as effectively as possible.

### The right solution

Effective dust suppression depends next to the water mist as well on these factors: the general dust tendency of the material, plant-specific conditions such as conveying speed, drop height of the material, but also the ambient conditions have a significant influence on the effectiveness of a dust abatement system.

In order to find the right solution, all the mentioned factors must be taken into account as well. In the end, only know-how and experience helps to choose the ideal configuration (type of machine, type of nozzle, amount of water, etc.).



With the help of a water test we have documented the quantity [ $\text{l}/\text{m}^3$ ] for all our solutions. This gives us a decisive advantage in the positioning of our solutions.

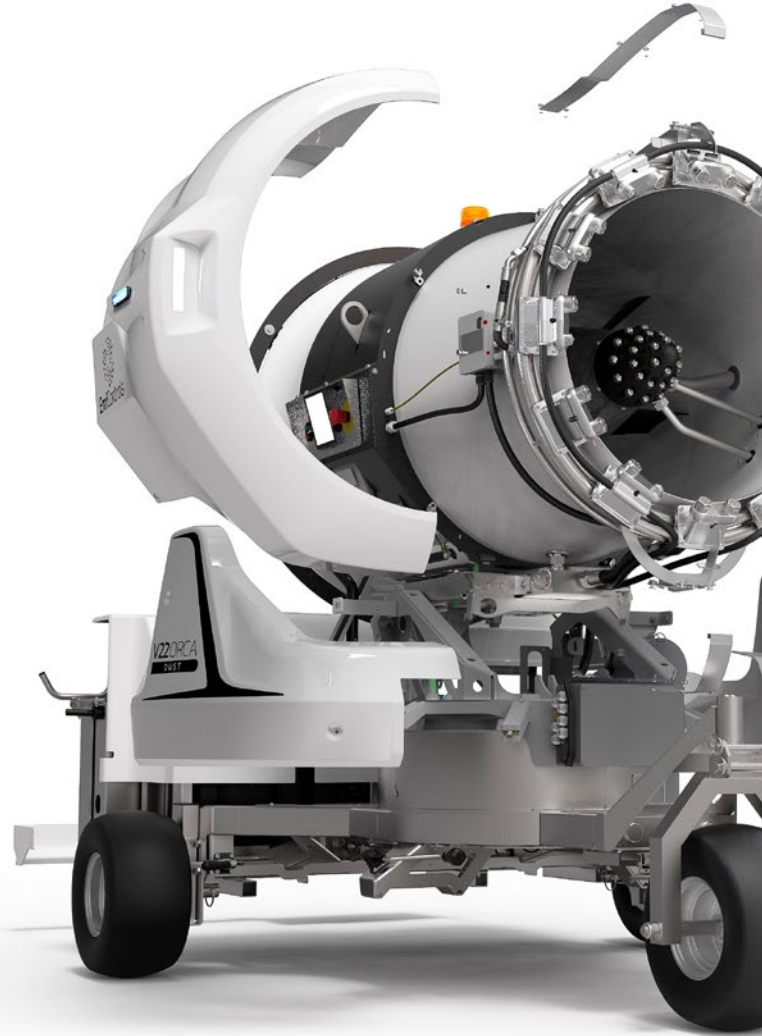
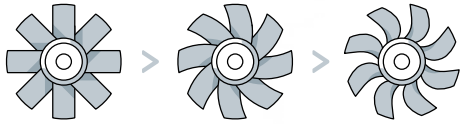
## ATTENTION TO DETAIL

# THE TECHNOLOGY MAKES THE DIFFERENCE

### Turbine

Thanks to innovative materials and refined aerodynamics of the blades, our machines are:

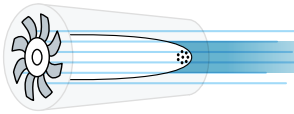
- › particularly quiet and
- › energy efficient



### Low energy consumption

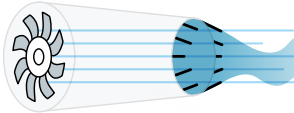
Thanks to the special aerodynamics of the blades as well as the nozzle head, our machines offer less consumption for the same performance. Compared to other machines, they consume on average 25% less energy by keeping the same throwing distance.





### Nozzle head

The internal nozzle head makes optimum use of the air flow, since the direction of the water spray is parallel to the airflow (laminar).



In comparison, with an external nozzle ring\*, the water is sprayed obliquely into the airflow and creates a turbulent flow, which is accompanied by a loss of power.

The nozzle ring has the following advantages:

- › better performance
- › machine is less affected by wind

\* Our larger models have a nozzle ring in addition to the nozzle head. This is needed to put through the necessary amount of water for optimal dust abatement.



### Water supply

The performance of the pump, filter, valves, and sensors are specifically designed for efficient dust suppression; i.e., enough water can be pushed through to achieve an optimal result in the fight against dust.



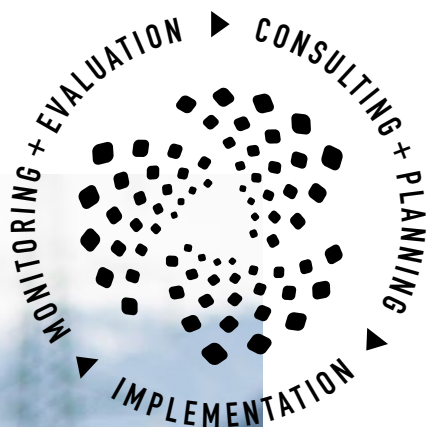
### Complete machine

All our machines include:

- › radio remote control
- › centrifugal pump with a stainless-steel filter
- › sensors that protect the machine against overheating and dry running
- › automatic drainage (makes turbines frost-proof)
- › at least 3 waterways
- › automatic swing
- › timer for automatic on and off
- › water and electricity connection
- › lifting system
- › special cooling system for control cabinet and technical documentation



# INSIG



## WE PROTECT OUR CUSTOMERS FROM DUST PROBLEMS

Behind every well-functioning plant stands an excellent planning as well as consulting team. At EmiControls, nothing is left to chance: before we start a project, we personally visit the site and provide our customers with competent and professional advice.

Once the problem has been evaluated, we work hard to find the right solution. Our project management team starts with the planning of the system and, in constant exchange with our customers, finalizes the plans and then organizes the installation of the plant on schedule.

After a successful briefing and handover of all necessary documents, the plant will be commissioned.

Customer service as well as the project management team, are also available for our customers at any time after the installation and are at your disposal for topics such as: maintenance, spare parts or continuous improvements of the plant.





**CONSULTING + PLANNING**

1 Problem identification  
and solving

To guarantee optimal results, the demands and needs of our customers are the main focus of our planning from the very first consultation.



During an initial on-site inspection, we analyze the sources of dust and the type as well as the quantity of dust. With the help of the gained information, we determine the actual state and then, together with the customer, we define the requirements and goals for the dust suppression system.

Only when the actual and desired state has been defined, we start with the planning of the dust suppression system. In close cooperation with the customer, we calculate all elements of the plant down to the last detail. Because only a perfectly coordinated plant planning is the key to an energy-efficient and resource-saving dust control system.

---

**Step 1**  
**Assessment of the actual state**

- › Definition of the dust source
- › Measurement and logging of the intensity and concentration of dust emission (over a longer period of time)
- › Determination of the different types of dust
- › Analysis of material flows

---

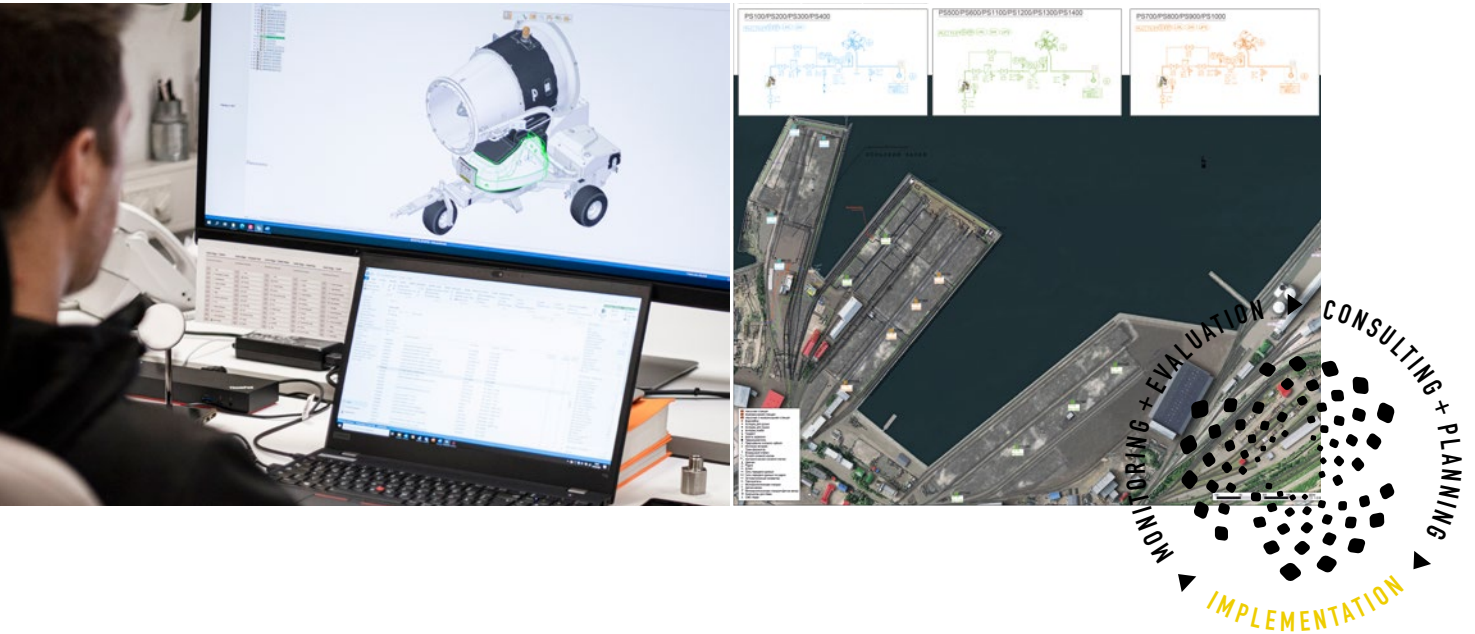
**Step 2**  
**Definition of the desired state**

- › Which legal aspects have to be considered in terms of environmental protection and occupational safety?
- › Based on the dust measurements and possible requirements from authorities/work safety etc., we define the desired values
- › What are the technical requirements for the plant (e.g. automation)?

---

**Step 3**  
**Solution proposal**

- › Elaboration of the project to achieve the desired state



## IMPLEMENTATION

# 2

## Competent organization during installation and commissioning

---

### Step 4 Installation

After the planning and coordination phase, we begin with the installation of the system.

---

### Step 5 Commissioning

- › Training
- › Handover of all documents

An EmiControls project manager is responsible for supervising and coordinating the work while serving as the primary contact for the customer. The specific nature of each dust problem always requires an individual approach to be perfectly tailored to the customer's needs.

At the end of the construction work, the project manager and his team take over the commissioning and, after a detailed training session, hand over the dust suppression system to the customer.



KEEP TRACK

V12

# RELIABLE SOLUTIONS FROM A RELIABLE PARTNER







## MONITORING + EVALUATION

# After-sales service & monitoring of dust values

Even after commissioning, we are always there for our customers. The service team is available to our customers for questions regarding the plant as well as for any repair and maintenance work.

Maintenance contracts additionally ensure long-lasting safety and reliable operation of the plant. In order to be able to immediately solve any problems that may arise, we have an extensive stock of spare parts; not only for the current equipment but also for older models.

In order to check whether the system achieves the desired and pre-defined goals, we regularly check the dust values. These data additionally provide reliable documentation of the development of the dust values (interesting for authorities).


# 3

## Step 6 Verification of the desired state

- › Measurement of the dust values
- › Optimization of the plant

## Step 7 After-sales service

- › Regular maintenance
- › Delivery of spare parts

A high-angle photograph of a construction site in a mountainous region. In the foreground, there are concrete structures and a large pile of dark earth. A yellow truck is driving on a dirt road, being sprayed with high-pressure water from a machine, creating a large mist. In the background, there are buildings under construction, a crane, and rolling hills under a clear sky.

THANKS TO AUTOMATED  
AND EFFICIENT SOLUTIONS,  
OUR CUSTOMERS ACHIEVE  
MAXIMUM RESULTS WITH  
MINIMUM USE OF RESOURCES.  
THIS SAVES COSTS AND TIME.

← The machines can be controlled from the office thanks to CURT software.

← Thanks to interfacing with a meteo station, the machines switch on or off automatically based on predefined weather conditions such as wind strength, wind direction, temperature and humidity.



The machines only run when necessary. This saves water and energy.

Employees are not disturbed in their work processes.

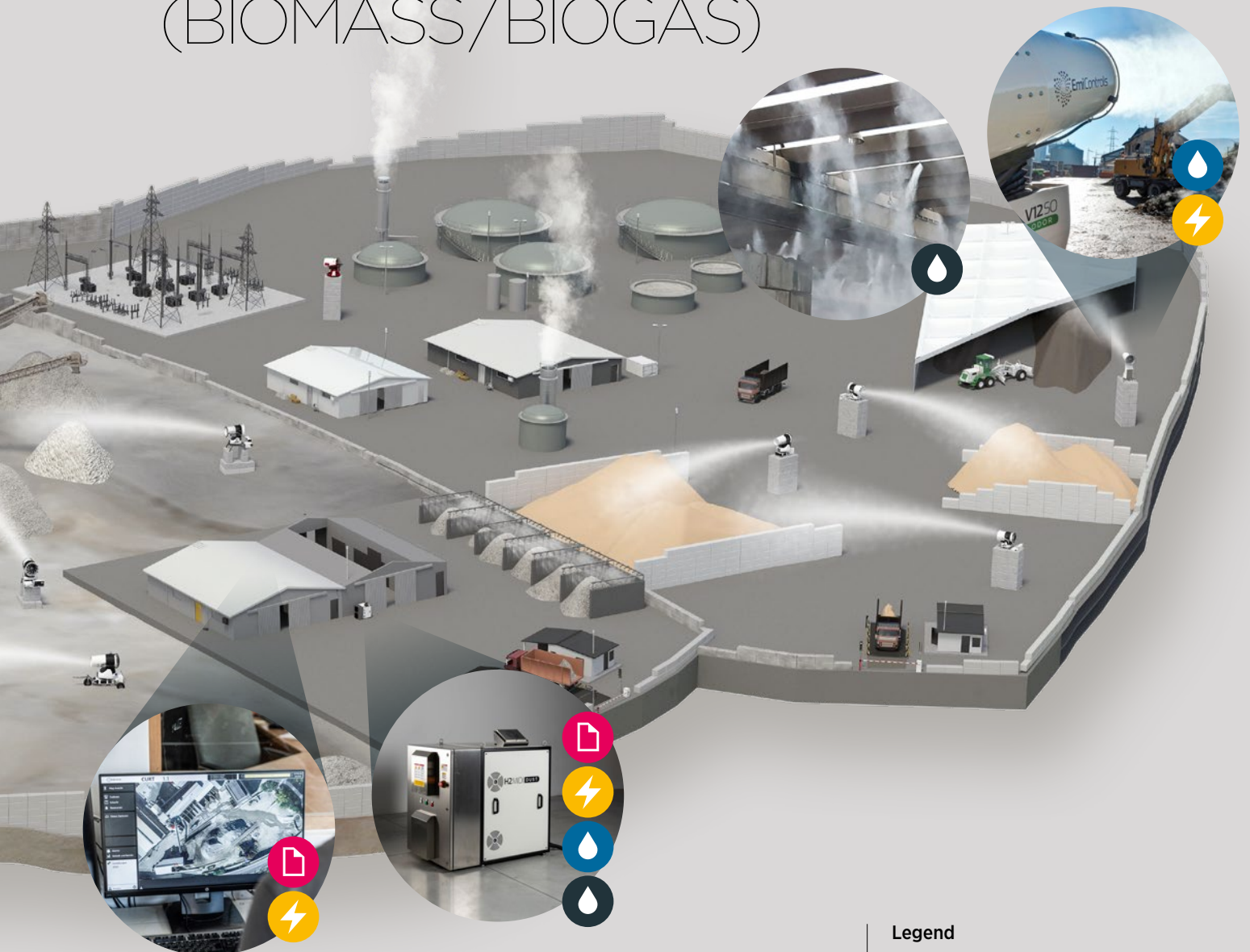
CASE

# EXAMPLE OF A PLANT







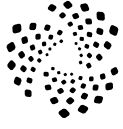
## CONSTRUCTION WASTE RECYCLING (MINERAL MATERIALS)

# RECYCLING (BIOMASS/BIOGAS)



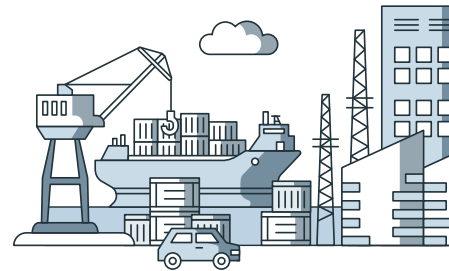
## Legend

-  Data Cable
-  Power Line
-  Water Line
-  High Pressure Water Line



Due to their flexibility, our dust and odor control solutions are used in many different fields of applications.

Our solutions provide the following benefits in addition to emission reduction:



### Heavy Industry

- › Enhanced safety for staff through a drop in emission values
- › Better visibility
- › No issues with neighbours
- › Better working conditions for employees

### Ports, Storage and Handling Sites

- › Protection of neighborhood from dust
- › Our solutions use little water, which ensures that the goods do not get wet
- › No issues with neighbours

### Demolition

- › Protection of neighbourhood from dust
- › Silent dust controllers ensure low noise emission
- › For demolition works, low dust and noise production avoids interruptions from either neighbours or the community

### Recycling

- › No issues with neighbours
- › Our solutions use little water, which ensures that the goods do not get wet



### Composting

- › No issues with neighbours

### Tunnel Construction

- › Better working environment for employees
- › Better visibility
- › Dust suppression prevents other construction vehicles from being covered with dust

### Quarries and Mines

- › Complete systems allow dust suppression even on large surfaces
- › Protection of neighbourhood from dust

# SMALL DROPS, BIG IMPACT.

Thanks to our partner network, we are represented in Europe, but also internationally, and can therefore always guarantee a competent and fast after-sales service for the machines.

3.000<sup>▲</sup>

High up: two V22 are working 3,000 m above sea level in a mine in the Andes

17.612<sup>🔄</sup>

One V22 has managed to work 17,612 hours in 6 years, which is an average of 8 hours a day. It is still running.





-300 

Deep below: a V12so is working  
in a mine 300 m below sea level

43 

Our dust suppression solutions are  
in use in 43 countries worldwide

1.500 

The V22Orca consists of 1,500 individual parts



# Success Stories

## EmiControls, a Love Story



### Beton Lana – Italy

In order to protect the surrounding buildings and residents, Beton Lana has installed a dust-suppression system with one turbine and the management software CURT. The dust controller starts automatically every morning for ten minutes and then again at regular intervals throughout the day. If necessary, the turbine is also used to abate dust during the loading and unloading of the trucks (manually). Thanks to the connection with the weather station, the turbine does not start when it rains, when the wind comes from the wrong direction or if other weather conditions are not suitable.



### KIBAG – Switzerland

At KIBAG (building materials manufacturer) in Regensdorf (CH) a fully automated system consisting of two turbines and CURT software ensures clean air. With the help of CURT, both turbines can be operated independently of each other in real-time. The plant runs according to a predefined weekly program, even on weekends. This ensures, that dust pollution is kept at a minimum level. The turbines switch on in the morning before the first employees arrive at work, which not only reduces dust emissions but also provides a pleasant refreshing effect (especially in the summer months). The system is also connected with a weather station.

### BWR – Italy

Dust from the construction waste recycling sector, belonging to the company BWR, regularly covered the photovoltaic system on the roof of a neighboring company. For this reason, BWR opted for an efficient system for dust suppression. The two turbines with CURT system do not operate according to a fixed interval schedule but are conveniently activated by employees from the office at the click of a mouse when there is a particularly high volume of dust, for example during the unloading of trucks.



WITH US, BUSINESSES  
MAKE A BIG STEP  
TOWARDS BECOMING  
A TRULY SUSTAINABLE  
COMPANY.





WE SUPPLY PROVEN  
TURNKEY SYSTEMS AND  
REMAIN AT YOUR SIDE  
WITH OUR COMPETENT  
AFTER-SALES SERVICE.



EmiCor



## LARGE-SCALE DUST SUPPRESSION



**V7**  
P. 32



**V12S**  
P. 34



**V22**  
P. 36



**V22ORCA**  
P. 38



 We protect our customers from dust and its consequences.

In order to achieve this goal, we develop each mobile as well as stationary dust control solution according to the following guidelines:



Low Energy Consumption



Long Lifespan for Machine and it's Components



Low Maintenance Costs



Versatile Configuration



High Safety Standards



Full Control over Water Flow, Throw and Droplet Size

## PRODUCT OVERVIEW

### SELECTIVE DUST SUPPRESSION



**L3**

P. 40



**H2SYSTEM**

P. 42

### SPECIAL SOLUTIONS (MOBILE)



**NAUTILUS**

P. 44



**DUST CAT5000**

P. 45

### SOFTWARE



**CURT**

P. 46



## V7 DUST

### For medium throwing distances

The V7 is the ideal dust controller for working in smaller areas. Above all, it impresses with its extremely low consumption (10.5 kW) but achieves throwing distances of 30 – 40 meters. Thanks to the booster pump, the nozzle head located inside the turbine can be used even with the turbine engine switched off.

Throwing distance: **30 – 40 m**

Inclination: **0° up to +52°**

Rotation: **360°**

Water flow: **16 – 100 l/min**

Operation: **Remote Control + Display**

Nominal power – turbine: **6.5 kW**

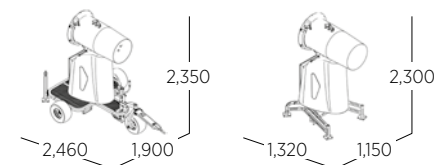
Nominal power – pump: **4 kW**

Sound pressure level LA: **73 at 20 m db(A)**

#### Optionals

Heating, submersible pump, hydrant kit, various nozzles

Available on undercarriage as well as on machine carrier.




Dimensions in mm



THE V7 IS CERTIFIED ACCORDING TO UL AND CSA STANDARDS.





 DEVELOPED ACCORDING TO EMICONTROLS PRODUCT GUIDELINES

In addition, the V7 guarantees the following advantages:

- › it is a powerful dust controller (30 – 40 m throw) with an extremely low consumption of 10.5 kW
- › the compact size of the turbine allows easy transport as well as easy repositioning

### Typical Applications

Recycling plants, material handling centers, industry, wood processing and smaller demolition work




## V12S DUST


### The quietest dust controller in the world


The V12s is a true all-rounder: thanks to its low noise emission (60/63 dbA @ 20 m), it can be used in city centres and residential areas without any problems. The turbine has two levels of speed, so it is flexible enough to spray fine water mist from 25 to 65 meters. In addition, the amount of water can be regulated by remote control on three different levels. The water flow varies between 16 and 100 l/min.

ALSO AVAILABLE AS MANUAL VERSION


#### Works with 2 levels of speed

 Throwing distance: **25-35\* m / 50-65 m**

 Inclination: **-18° up to +40°**

 Rotation: **350°**

 Water flow: **16-100 l/min**

 Operation: **Remote Control + Display**

Nominal power – turbine: **3\* / 11 kW**

Nominal power – pump: **4 kW**

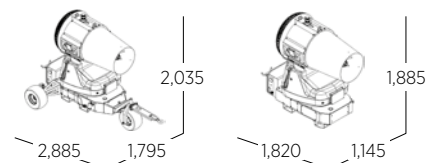
Sound pressure level LA: **60\* / 63 at 20 m db(A)**

\* at reduced speed

#### Optionals

Heating, submersible pump, removable control panel, GSM modem, various nozzles

Available on undercarriage as well as on machine carrier.



Dimensions in mm



DEVELOPED ACCORDING TO EMICONTROLS PRODUCT GUIDELINES

In addition, the V12s guarantees the following advantages:

- › with a noise emission of 60/63 db(A), the V12s is the quietest dust controller in the world\*
- › thanks to the full control over the spray pattern, the dust source can be targeted very precisely
- › the V12s is very flexible and versatile in use as it is quiet, offers different throwing distances as well as an adjustable water flow, many optionals are available and the compact size of the turbine makes transport and repositioning easy

\* Thanks to the use of innovative materials and the refined aerodynamics of the turbine blades

### Typical Applications

Ideal for work in city centers or areas where noise levels need to be kept low, industry, demolition, all types of open-pit mining, recycling plants, material storage, loading facilities, landfills and wood processing




## V22 DUST


### For large throwing distances


The V22 is our most powerful dust controller and easily suppresses huge amounts of dust. Thanks to its large throwing range (up to 90 m), the V22 is particularly suitable for applications in big outdoor areas, such as open-cast mines, harbors, quarries, etc.



THE V22 IS CERTIFIED ACCORDING TO UL AND CSA STANDARDS.

 Throwing distance: **70 – 90 m**

 Inclination: **-18° up to +40°**

 Rotation: **350°**

 Water flow: **119 – 350 l/min**

 Operation: **Remote Control + Display**

Nominal power – turbine: **18.5 kW**

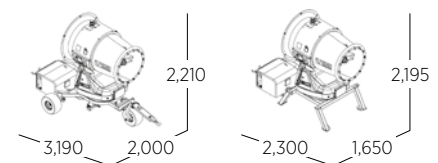
Nominal power – pump: **11 kW**

Sound pressure level LA: **63 at 20 m db(A)**

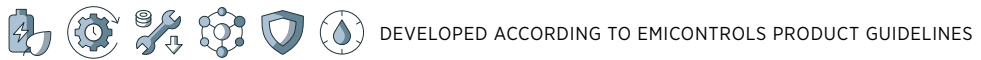
#### Optionals

Heating, submersible pump, removable control panel, GSM modem

Available on undercarriage as well as on machine carrier.



Dimensions in mm



In addition, the V22 guarantees the following advantages:

- › the V22 is a powerful machine with a high throwing range (70 to 90 m) and at the same time low energy consumption (29.5 kW)
- › thanks to its large throwing range, the V22 is ideal for dust suppression in outdoor areas
- › the compact and robust design ensures easy transport and allows as well mounting on a lift or vehicle such as trucks and trailers

### Typical Applications

Industry, demolition, all types of open-pit mining, recycling plants, material storage, loading facilities, landfills, wood processing and quarries





## V22ORCA DUST


For efficient dust control even in winter, with temperatures down to  $-25^{\circ}\text{C}$

The V22Orca is the first hybrid dust controller on the market that easily and safely combats dust both in summer (up to  $+40^{\circ}\text{C}$ ) and in winter at temperatures as low as  $-25^{\circ}\text{C}$ . The V22Orca has been specially developed for cold countries: when, due to the icy temperatures, dust suppression with water mist is no longer possible, the V22Orca generates snow – an absolute novelty on the market. It is safe to say that the V22Orca guarantees efficient dust control all year round.

 Throwing distance: **70 – 90 m**

 Inclination:  **$-10^{\circ}$  up to  $+40^{\circ}$**

 Rotation:  **$350^{\circ}$**

 Water flow: **50 – 324 l/min**

 Operation: **Remote Control + Display**

Nominal power – turbine: **22 kW**

Nominal power – pump: **11 kW**

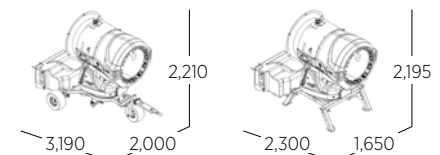
Betriebstemperatur:  **$-25^{\circ}$  to  $+40^{\circ}\text{C}$**

Sound pressure level LA: **70 at 20 m db(A)**

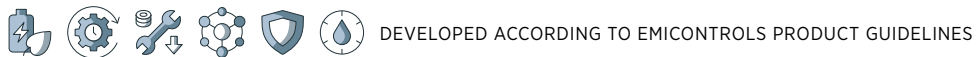
### Optionals

Submersible pump, removable control panel, GSM modem

Available on undercarriage as well as on machine carrier.



Dimensions in mm



In addition, the V22Orca guarantees the following advantages:

- › a year-round efficient and powerful dust suppression (from +40° down to -25° C)
- › as soon as the temperature drops below 0° C, the V22Orca automatically switches to winter mode and produces snow for dust suppression
- › thanks to its hybrid function (snow and water mist), it is also useful in cold countries and in countries with high variations in temperature

### Typical applications

The V22Orca is specially designed for northern countries or countries with weather extremes. It is suitable for industrial operations of all kinds, demolition, ports, loading facilities, mines, open-pit mining, etc.







## L3 DUST


### The mobile lance for working directly at the dust source


The L3 has been specially developed for situations where dust control must take place in the immediate vicinity of the dust source. Thanks to its low weight and two wheels, the lance can be repositioned quickly and easily. The handy L3 convinces above all with its power and the high throwing distance (8-12 or 20 meters), which one would not believe at first sight. The reduced consumption of water and energy make the L3 a very environmentally friendly solution for dust suppression.

The L3 is available in a 4 and 21 liter version.

 Throwing distance: **8-12\* / 20 m**

 Inclination: **-30° up to +60°**

 Rotation: **270°** (only with Remote Control)

 Water flow: **4\* bzw. 21 l/min**

 Operation: **Remote Control**

Nominal power – pump: **0.75\* / 3 kW**

Sound pressure level LA: **63 at 20 m db(A)**


\*4 liter version



Dimensions in mm





 DEVELOPED ACCORDING TO EMICONTROLS PRODUCT GUIDELINES

In addition, the L3 guarantees the following advantages:

- › it can work in the immediate vicinity of the dust source, with rotation and inclination of the spray head (controlled by remote control)
- › with a noise emission of 63 db(A), the L3 is particularly quiet and can also be used indoors
- › due to its low weight, the L3 can be easily repositioned by only one person

### Typical Applications

Small demolition works, indoor areas, recycling, open-pit mining, industrial areas, crushing plants, tunnels, outdoor and transition areas to halls



## H2SYSTEM DUST

### Selective and tailor-made dust abatement

The H2 system for local dust suppression is a versatile high-pressure fogging system and, thanks to its modular design, can be flexibly adapted to the customer's needs (in terms of: degree of emission, place of use, quantity and property of the dust).

What makes the H2 system special is the fact, that the tested and practice-approved fogging technology ensures extremely efficient dust suppression, but at the same time requires only a very small amount of water. This means: dust is suppressed efficiently and in a cost-saving manner – directly at its source and without forming puddles of water.

 DEVELOPED ACCORDING TO EMICONTROLS PRODUCT GUIDELINES

#### In addition, the H2 System guarantees the following advantages:

- › high adaptability thanks to modular design
- › the best choice for indoor areas as well as selective dust suppression
- › extremely efficient in dust suppression thanks to the proximity to the dust source
- › thanks to the highly developed water mist technology, very little water is required for maximum results
- › easy installation



### Solution 1

## H2PUMP DUST

### Dust suppression in smaller plants

The H2 Pump has been specially designed for use in smaller plants and indoor areas. Equipped with industrial connectors (Harting), it can be installed quickly, easily and without errors. The available optionals such as automatic draining, heating, line cleaning and various nozzles kits ensure the best possible adaptation to the customer's needs. In addition, the H2 Pump is well equipped for working in harsh environments, thanks to the robust housing and the pressure and temperature sensors.

### Optionals

- › Heating of main unit and lines
- › Frost protection
- › Remote control
- › Removable control panel
- › Inverter



### Solution 2

## H2MIDI DUST

### Dust suppression in medium-sized plants

The H2 Midi is a complete solution consisting of two independent pumps, a control cabinet, self-cleaning filters, automatic drainage and an advanced software solution. It can independently supply water to up to 8 different application zones.

The H2 Midi impresses not only with its extreme flexibility of use and high efficiency in dust suppression but also with its modern software. Each zone can be operated and controlled individually on the machine's display. A calendar function gives additional autonomy and lets the H2 Midi start and stop automatically in the desired zones at the selected times of day and hour. Remote access within the network is also possible via a web interface.



Hollow-Cone and Flat-Jet Nozzles

## GO AUTONOMOUS

V22 NAUTILUS WITH GENERATOR AND WATER TANK



V12S NAUTILUS WITH GENERATOR



## Nautilus **DUST**

### The mobile All-in-One solution

For maximum autonomy on construction sites or areas without water and electrical connections, our dust controllers are also available with a generator and/or water tank. This flexible All-in-One system, called “Nautilus”, is self-sufficient and keeps the dust under control in any situation.

The Nautilus solution can be assembled in three simple steps, depending on requirements and needs. One chooses:



1 DUST CONTROLLER



2 GENERATOR



3 WATER TANK

**Autonomous All-in-One solution**  
with dust controller, generator and/or water tank

Dust controller: **V12s, V22**

Dimensions water tank: **sizes on request**

Dimensions generator: **to be selected according to the size of dust controller**

### Typical Applications:

Demolition, construction sites, open-pit mining, quarries and other applications where neither water nor electricity is available

## GO GREEN ELECTRIC VEHICLE ON TRACKS



## DUST CAT5000

### Full electric power with the DustCat

Off-road capable, fully electric, highly efficient – the coolest vehicle for dust suppression is now available on the market: the DustCat. Equipped with a 5,000-liter tank and tracks, the DustCat is the perfect unit for dust suppression in mines or large outdoor areas with difficult terrain (such as swampy or steep terrain).

Equipped with the powerful V22Orca turbine and its high throwing range of up to 90 meters, the DustCat covers easily large areas. In addition to the turbine, a spray bar with nozzles is installed at the rear end of the tracks, which moistens the soil and seals its open surface.

Knocking down emissions without generating any: the DustCat is zero emissions in perfection!

### Typical Applications

Large outdoor area with difficult terrain



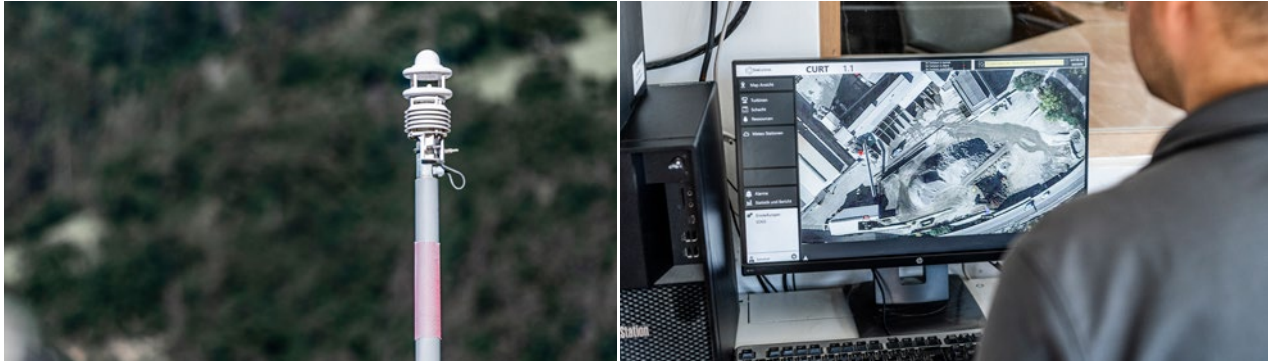
## CURT **DUST**

### The management software for our dust controllers

The management software CURT can monitor all dust controllers and associated components of a plant and controls them independently in real-time – at the click of a mouse.

If certain work processes regularly generate dust, various inputs (such as information from the weather station or time control) can be used to define when and how the system is to be switched on or off automatically. This means that protection against dust is no longer in the hands of the employees, but happens automatically and energy-efficiently.

Thanks to CURT, the system always and only runs when it is needed.



With CURT, all components of a plant such as dust controllers, weather stations, sensors and pump stations can be individually managed and monitored.

### CURT reacts to the following inputs

- › Time control with calendar function
- › Various weather conditions such as wind, rain, temperature, humidity
- › Light barrier

Inputs can be defined separately for each dust controller in the plant.

CURT is connected to SCADA systems

### CURT offers the following advantages to companies and employees:

- › **Autonomous:** the plant runs completely automatically based on the predefined parameters, guaranteeing the consistent quality of dust abatement.
- › **Time-saving:** as the system runs autonomously, employees are not disturbed in their work processes.
- › **Increased safety:** the system can be controlled from the office at the click of a mouse, thus avoiding unnecessary personnel operations on the site.
- › **Energy and cost-efficient:** our dust suppression solutions are generally very energy-efficient and low in maintenance. Thanks to CURT and the pre-defined parameters, the machine only switches on when it is needed. This saves additional money and resources.
- › **Flexible:** the different inputs allow flexible adaptation to the needs of our customers. In addition, the system can be expanded without any problems.
- › **Easy to use:** thanks to the well arranged graphic design, CURT can be operated conveniently without extensive software knowledge.

## OPTIONALS

Our dust controllers are available with a wide range of optionals – allowing them to be best adapted to any specific need and situation.



### Heating kit for winter operation

In order to guarantee efficient dust control all year round, the winter heating kit is available. It insulates and heats all the pipes of the dust controller, allowing its use even in negative temperatures down to  $-10^{\circ}\text{C}$ .

### Submersible pump

If the dust controller is to be supplied with water from a basin or tank, it requires a submersible pump. With the help of the submersible pump, the water is sucked in and can be fed into the dust controller. The submersible pump can be easily connected and disconnected from the machine.

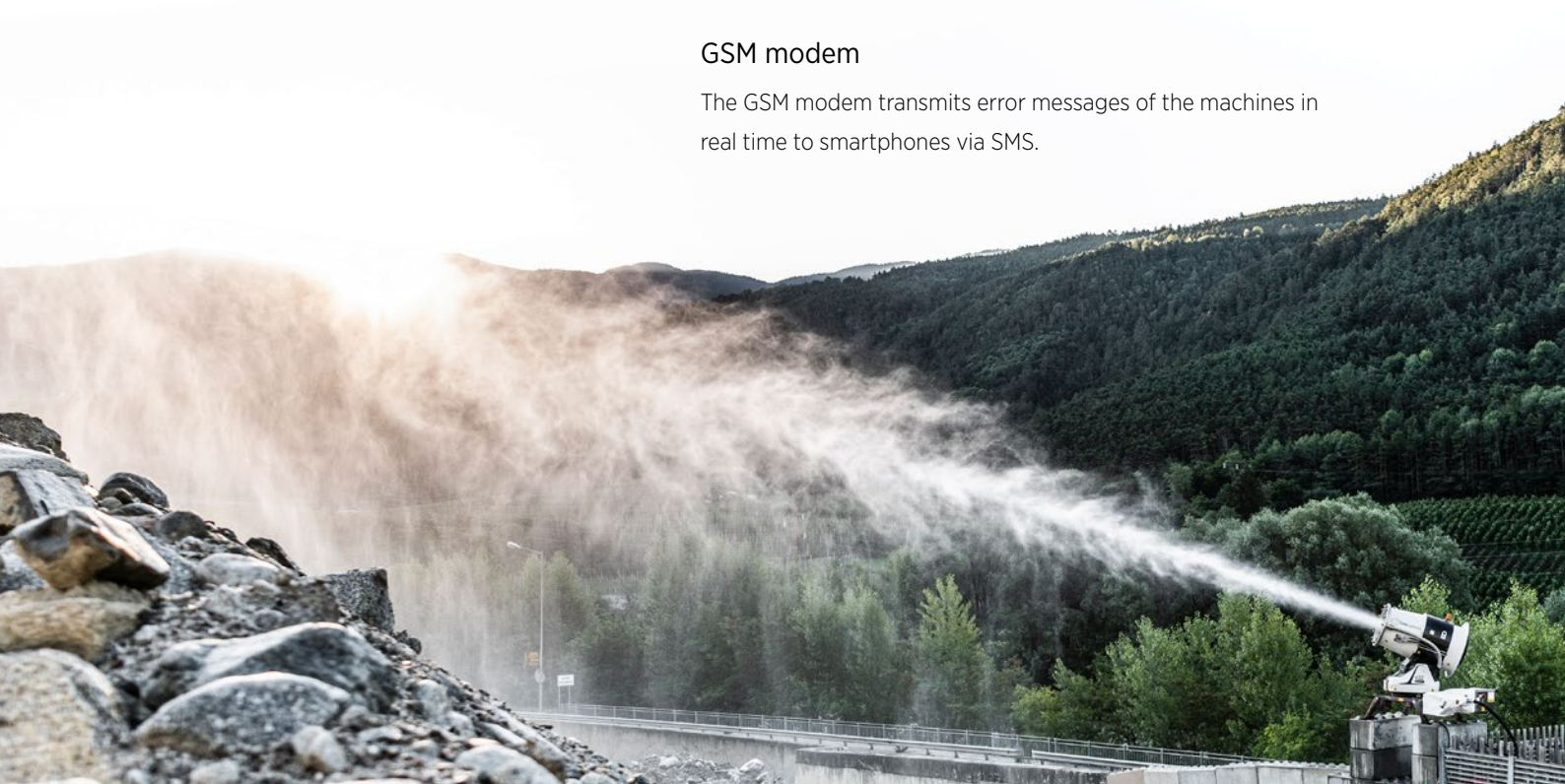


### Removable control panel

It is possible to remove the control panel of our dust controllers and to install it permanently in a new place. This is especially interesting when machines are installed in places that are difficult to access or are operated from another room.

### GSM modem

The GSM modem transmits error messages of the machines in real time to smartphones via SMS.







## OTHER SOLUTIONS: ODOR SUPPRESSION


### V1250 ODOR


#### The first pure odor controller on the market


The V12so is a turbine that has been specially developed for odor control. The nozzles produce a fine water mist, which is distributed over a wide area using a turbine. A dosing system mixes in biodegradable substances that are able to neutralize unpleasant odors. Unpleasant odors emanating from a large-scale area can be dealt with using the turbine's throwing distance of up to 50 meters. Operating costs are extremely low compared to other solutions available on the market (biofilters, scrubbers, exhaust systems, etc.)


#### Typical Applications

Wherever unpleasant odors are generated; for example, in recycling yards, composting plants or landfills

 Throwing distance: **30\* / 50 m**

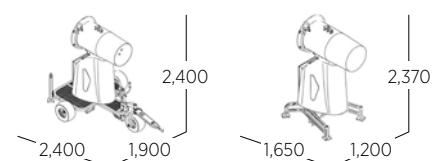
 Inclination: **0° up to +52°**

 Rotation: **360°**

 Water flow: **4 l/min**

 Operation: **Remote Control + Display**

\*at reduced speed



Dimensions in mm

WITH OUR SOLUTIONS  
YOU ARE SAVE FROM DISCUSSIONS  
WITH NEIGHBORS, EMPLOYEES  
OR ABOUT WORK SAFETY.







## EmiControls. Small Drops, Big Impact.

At EmiControls, we offer custom-made solutions for fighting fires, dust and odors – with the help of water mist. Thanks to their larger water surface, small drops of water achieve a far better effect than conventional measures.

Our in-depth know-how in the fields of mechanical engineering – and in the field of water atomization in particular – has enabled us to achieve unprecedented results across a wide variety of areas.

Safety when **firefighting** can be greatly increased thanks to water mist's ability to deprive fires of energy and to substantially increase the cooling effect.

When used for **dust control**, the fine drops of water immediately attach to the dust particles and bring them to the ground – helping to keep the air free from pollution.

Our **odor control** solutions are already being successfully used in composting and recycling plants – creating a more pleasant environment for employees.



EMICONTROLS SRL /GMBH  
VIA COPERNICO 6A · I-39100 BOLZANO/BOZEN  
T +39.0471.089.100 · INFO@EMICONTROLS.COM  
[WWW.EMICONTROLS.COM](http://WWW.EMICONTROLS.COM)