



Mining Dust Suppressors
Particle Filters
Automatic Measurement Equipment
Dust Barriers
H1 Controllers
Automated Measurement
Wheel Washers

Dust suppressors in mining



Advantages

It does not generate mud by preventing the development of thixotropy of clays and silts; when wet it increases slip resistance.

Less maintenance since it does not clog the sprinklers.

Zero viscosity once dissolved, it reduces the material that adheres to the wheels of vehicles.

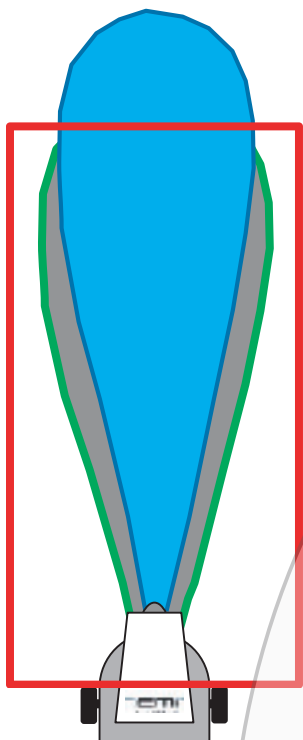
Clay and silt aggregator once dry, by increasing the grain size it makes it difficult for it to remain in suspension, reducing the dust produced.

Less noise compared to similar products.



Dust suppressors in mining

a clear ADVANTAGE



The EMIControls equipment generates the fog beam in the center of the turbine, achieving:

- High directionality
- Greater immunity to lateral wind
- Greater reach

The turbines generate an air current of 125 km/h that protects and propels the fog beam with optimal performance per KW. We use 20 bar pressure pumps guaranteeing:

- A spray with greater reach
- A generation of homogeneous fog
- An optimal drop size for each application
- Excellent range



Dust suppressors in mining

SPRAY

Spraying water against the cloud of particles.

The result is more effective but the large size of the droplets separates the particles and increases water consumption.

ATOMIZATION

Mist the water against the cloud of particles.

Efficiency increases while water consumption decreases.

Dust suppressors in mining

CENTRAL head

Configurable nozzle system.

Option I –Small nozzles (1,2)

Little wind and moderate dust

Option II –Large nozzles (3)

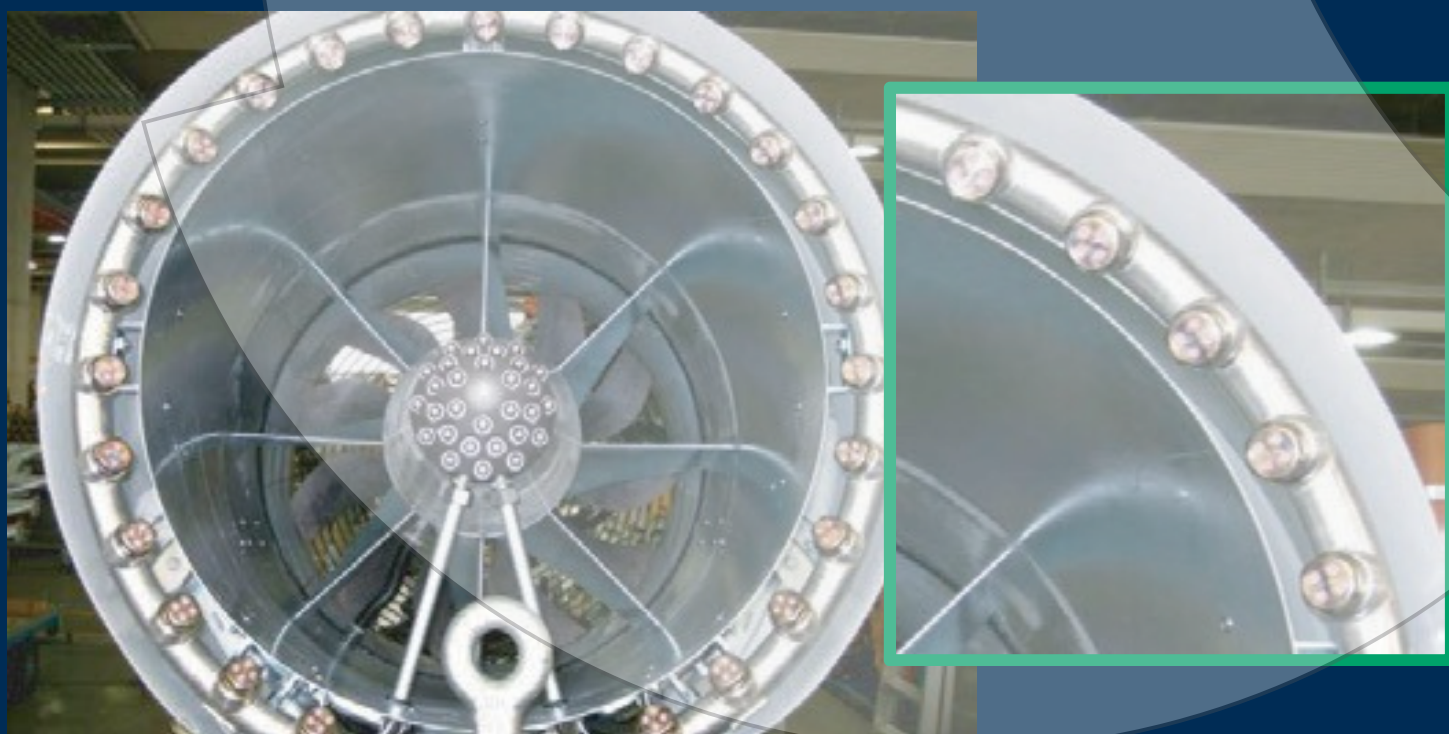
Presence of wind

Option II –Large nozzles (1,2) + small (3)

Presence of wind and intense dust



Nozzles QUADRIJET



Dust suppressors in mining

achieved – FIRST LOW NOISE TURBINE

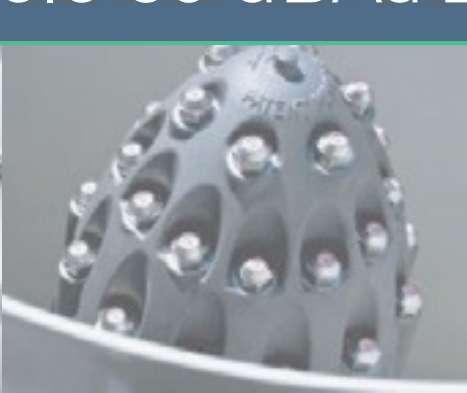
12 kW





wind tunnel

Solo 60 dBAa 20 m



- Own turbine design
- Aluminum blades
- Aerodynamic tests:
 - Minimize vibrations
 - Maximize energy efficiency.
- As a result, the first silent turbine: V12S



Dust suppressors in other applications

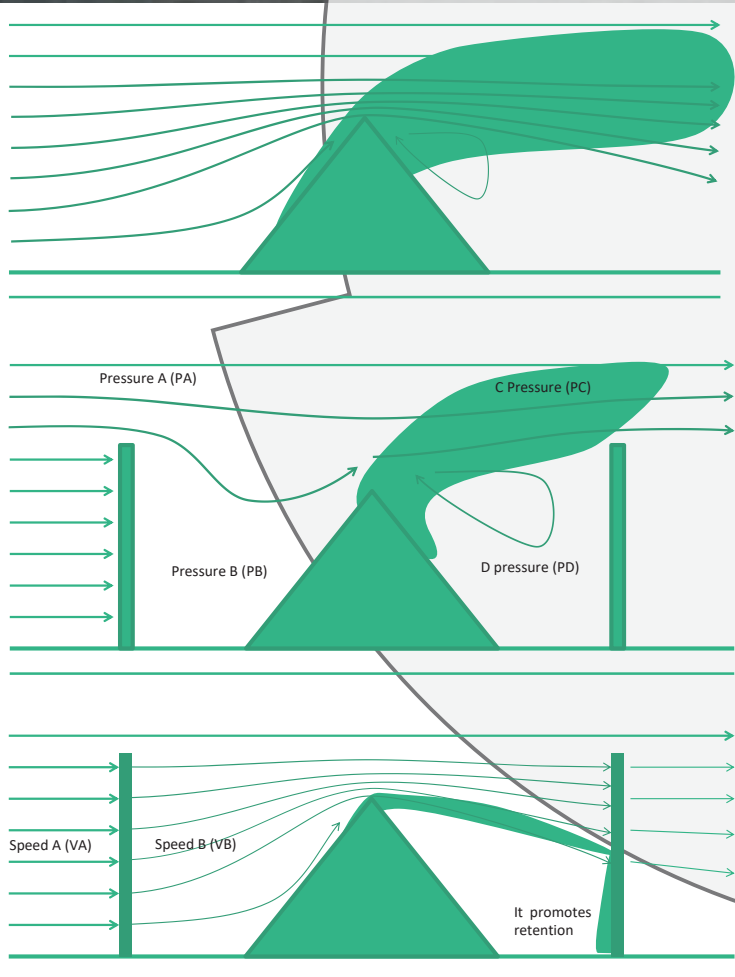
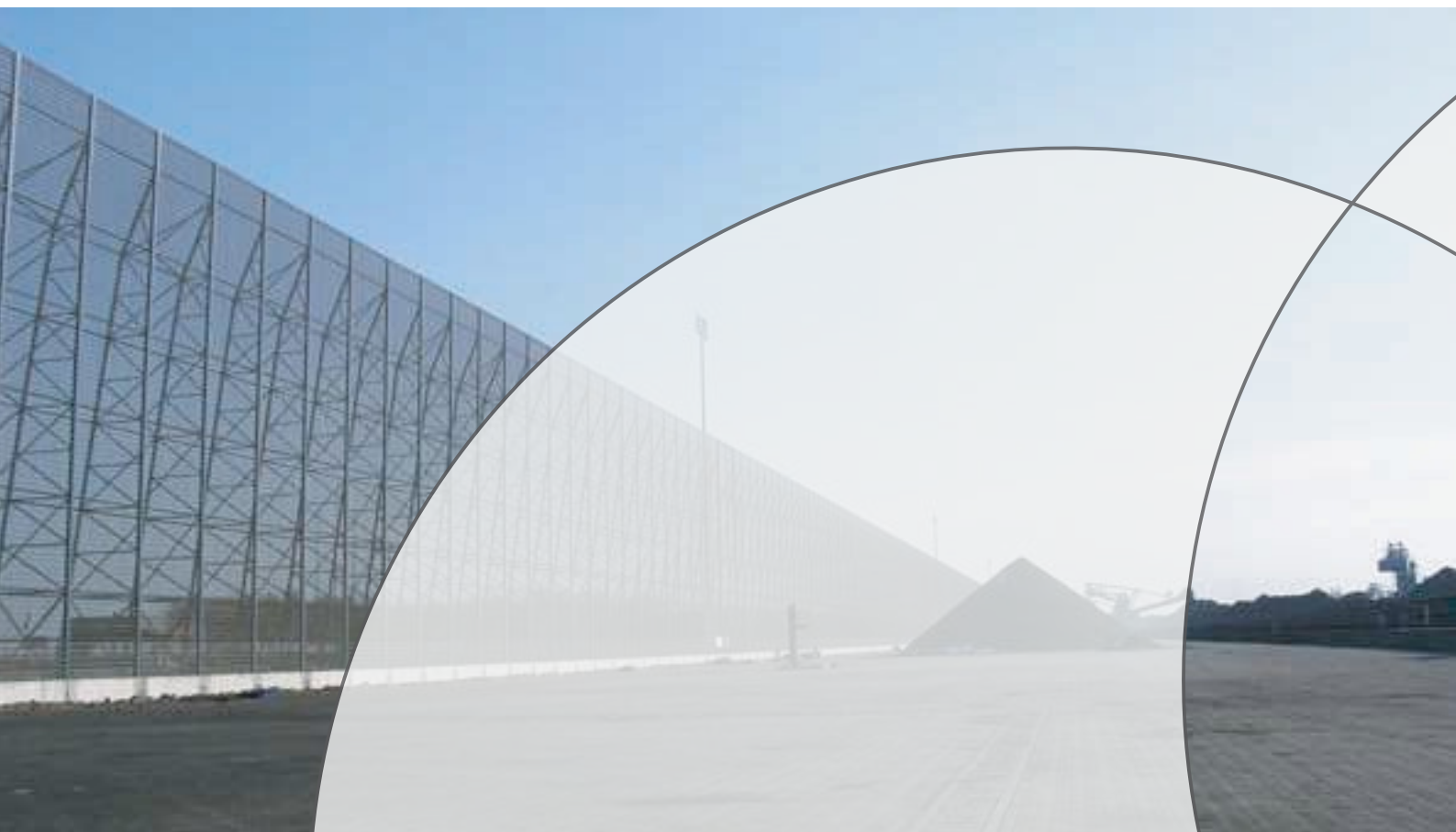
DEMOLITION WORK



WORKS IN GALLERIES



Dust barriers



Problematic

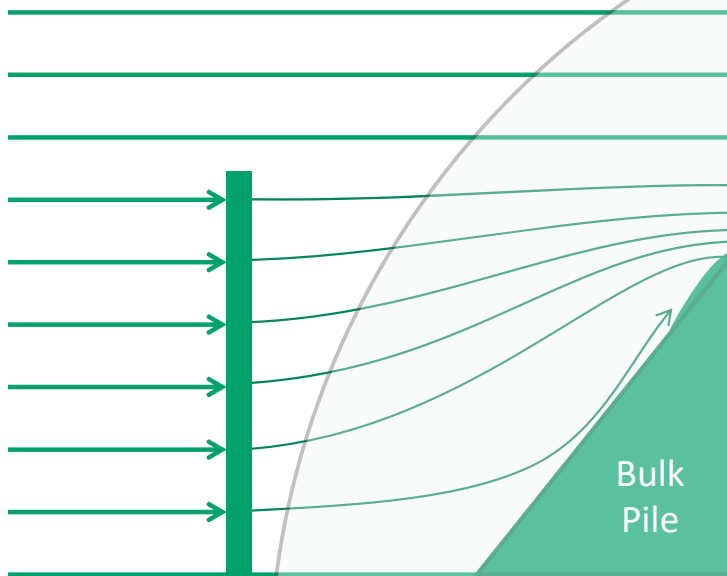
Opaque barriers

Permeable barrier

- Pressures are balanced.
- We eliminate turbulence.
- We decrease the speed of the wind.
- We reduce drag.
- We trap the particles.

Dust barriers

WINDBREAKER BARRIERS mechanism



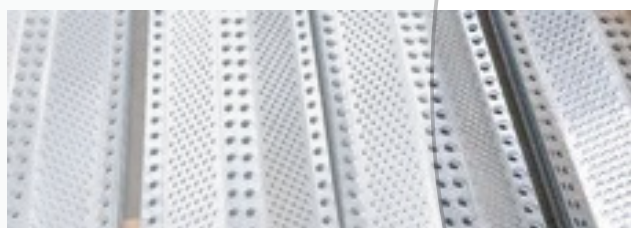
Optimized for speed reduction.

Opening 30%-40%

Opening Diameter: 6-10 mm

Thickness: 0.8-1.5 mm

Circular Opening



DUST SUPPRESSION BARRIER mechanism

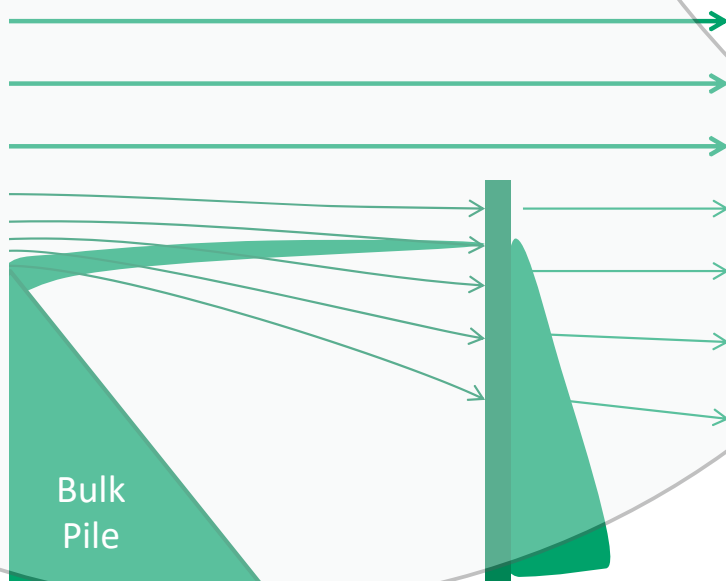
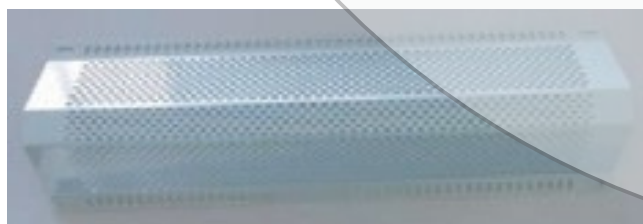
Optimized for dust retention.

Opening: 20%-30%

Opening Diameter: 4-6mm

Thickness: 0.8-1.5mm

Rectangular Opening



Automatic meters

Automatic Monitor

Dust

Noise

Temperature

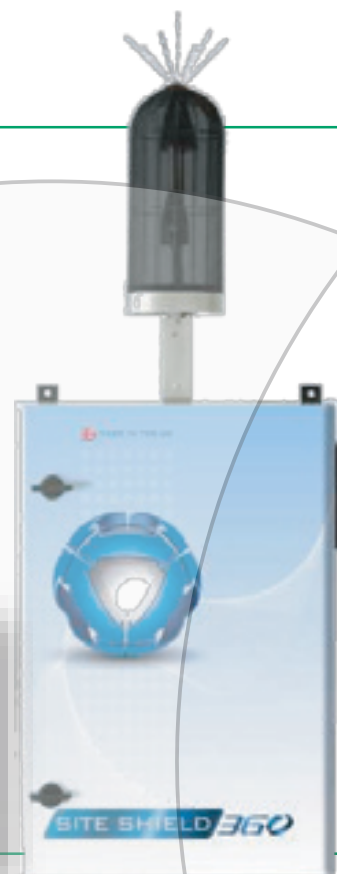
Speed and direction Wind

Wireless data sending -

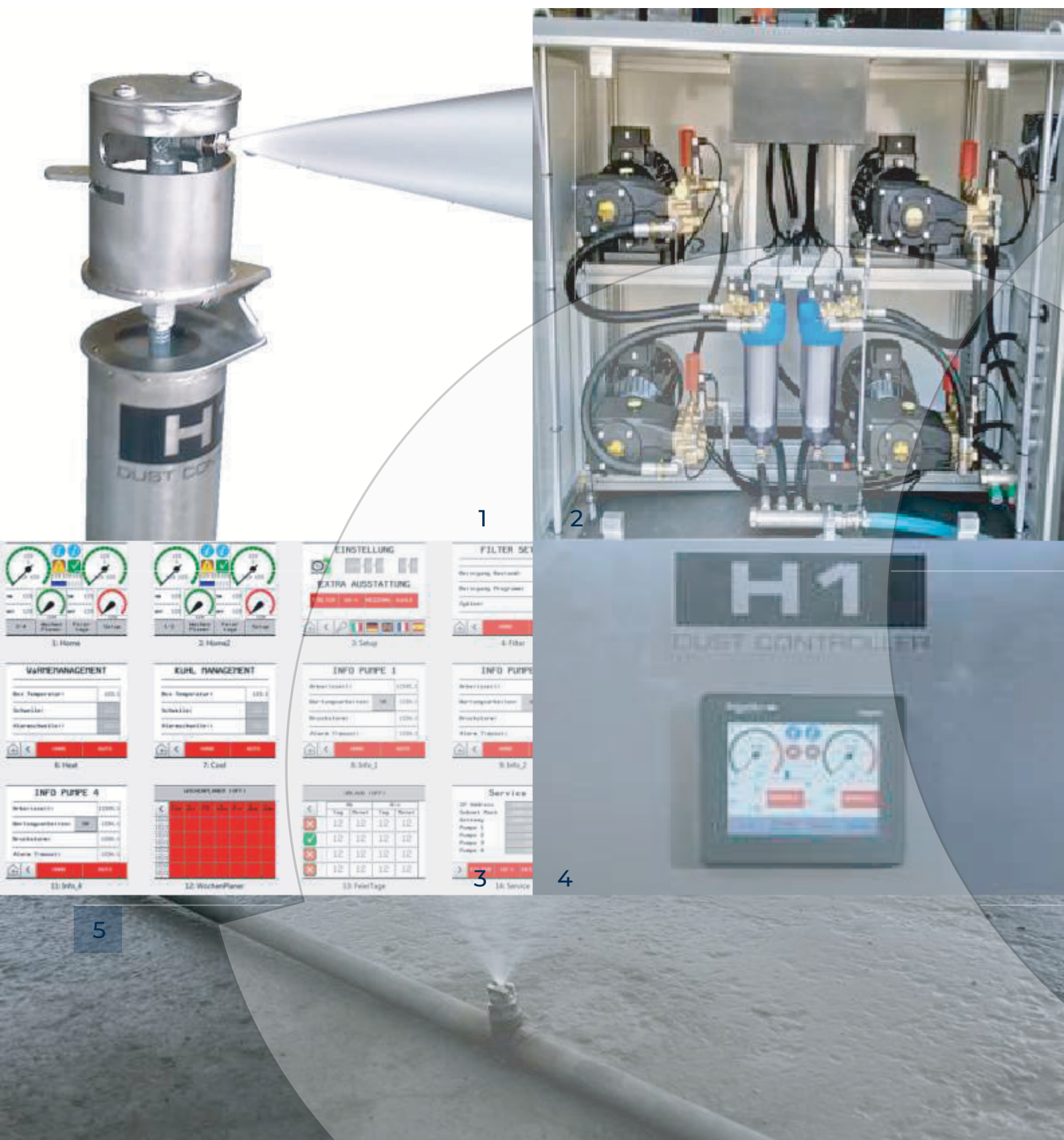
Cloud -3G

Control of the cannons
atomization

Fully autonomous



H1 Controllers



1 **Ceramic nozzles** to guarantee long life and efficiency, even with aggressive water. Manual or automatic sweeping system (optional). 2 **High-performance pressure pumps**: for quality atomization it is essential to work at high pressures. Robust construction and a very defined design of the metal propeller guarantee the absence of vibrations. 200 micron self-cleaning water filter. 3 and 4 **Intuitive and multi-language control panel**: the touch screen allows easy operation with all the information at your fingertips. 5 **Nozzles adapted to the application**: we have a wide range of nozzles to adapt to your application.

H1 Controllers

H1 - TRAILER



H1 - STATION



Multiple mounting options: Transport with wheels, Stations pumping with 1,2,3 or 4 pumps. Other options on request.

H1 Controllers

SPECIFICATIONS

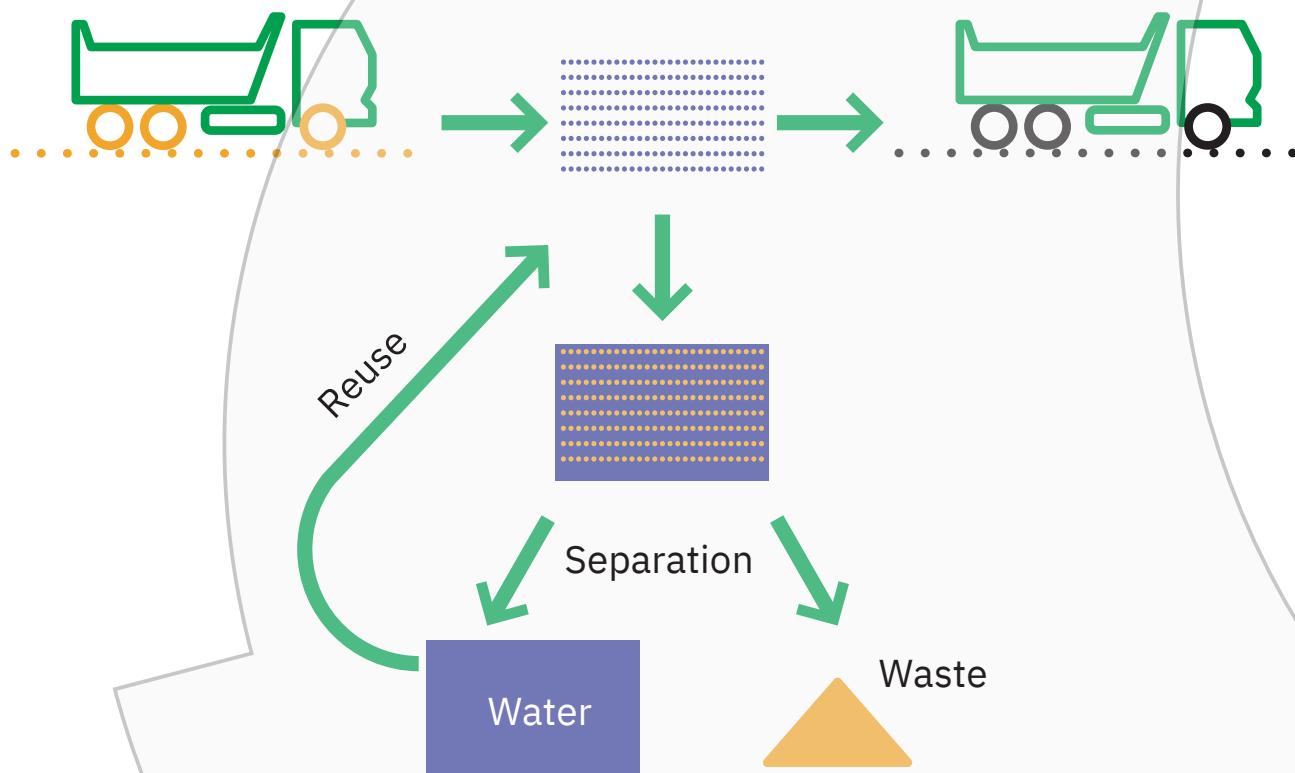
PUMPING SYSTEM	
Work temperature	-5/45 °C
Protection	IP54
Electric connection	16A 3F+N+T
Water connection	R 2 1/2"
Water filter	200 micron with self-cleaning system
Maximum pressure	100 bar
Max Flow per pump	15 l/min
Inlet pressure	2-8 bar
Water temperature	4/50 °C
Remote control range	100 m

TRANSPORT	
Maximum capacity	150 kg
Suspension	torsion bar with independent wheels
Security cable	Yes
Third support wheel	Yes
Wheels	400/100
Inflation pressure	2.3 bar
Engagement	Ball

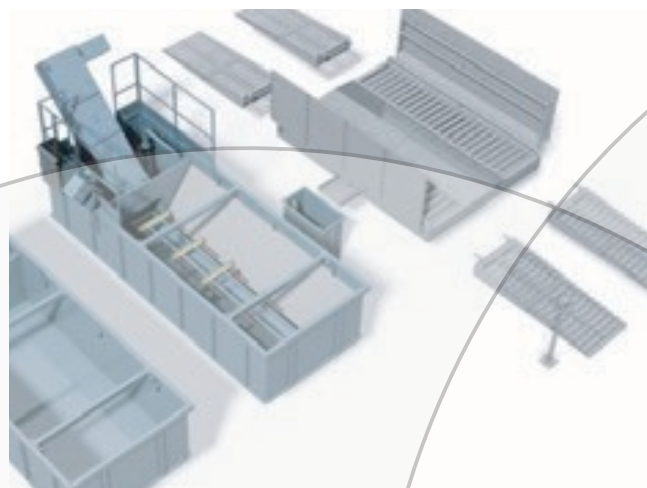
OSCILLATING NOZZLE	
Support Width	140 mm
Height	1.000 mm
Nozzle Height	900 mm
Weight	7,00 Kg
Sweep	180°
Tilt	0 °
Sweep Adjustment	Automatic
Working Pressure	70-100 bar



Wheel washers



Wheel washers



Temporary and Mobile Installations



Permanent and Fixed Installations



Cyclone Recycled



