



MANUFACTURER OF DUST SUPPRESSION SYSTEMS

PRODUCT CATALOGUE V1.5







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DUZTECH AB provide solutions for dust suppression. **OUR PRODUCTS** work with water. A mist of micro water droplets (optimized to the right size) is sprayed to suppress the dust. **WE OFFER YOU** knowledge, hardware, systemdesign and support in the area of dust suppression in- and outdoor. Normally Duztech works with water guns and/or fixed spray systems. **OUR PRODUCTS** are designed, constructed and assembled in Sweden. Our products are technically market leading and the company has a deep knowledge on designing and manufacturing machines for dust suppression.

WORKING WITH THE ENVIRONMENT We use modern technology to make the environment better. We invest in development of energy efficient equipment for dust suppression. During operation the equipment consumes a minimum of power and only water and air is used in the process.

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DEMOLITION Application



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CONCRETE CRUSHING Application



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COAL YARD Application



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MINING Application



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STEEL PLANTS Application



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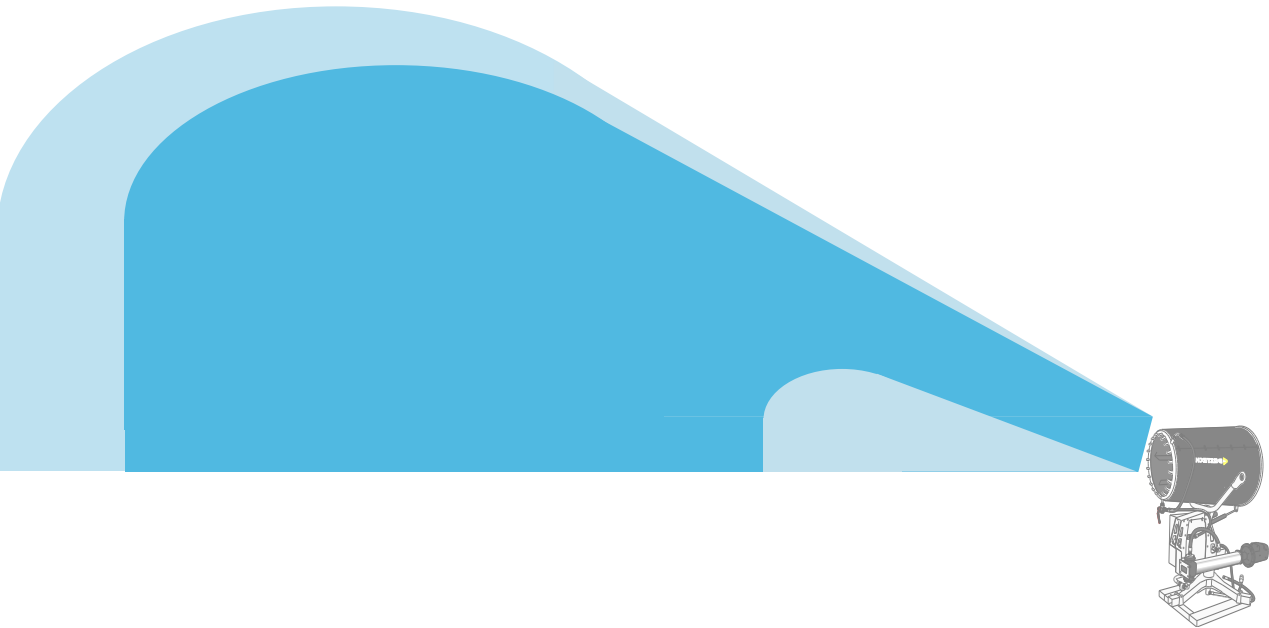
RECYCLING Application



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Throwing distance of fan machines

in theory & reality...

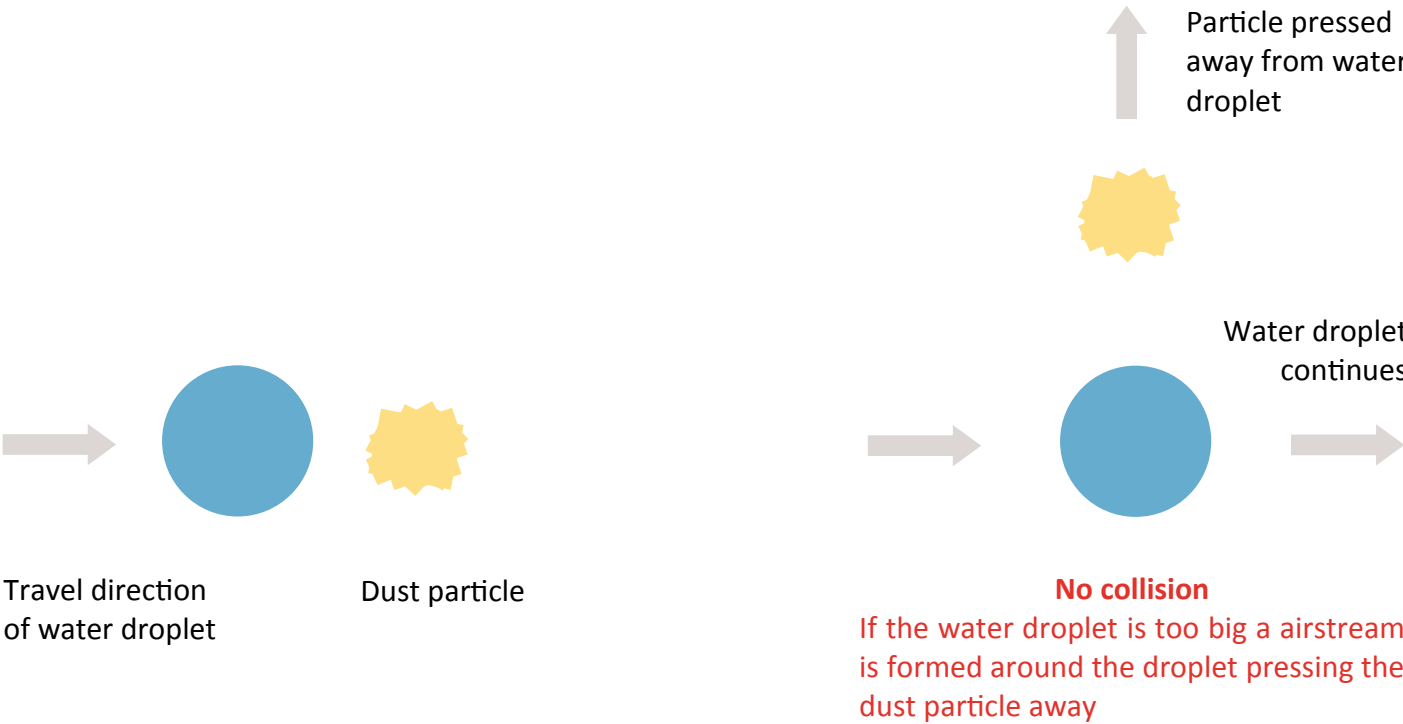


A 30	Max 30m:	70% of water volume at 5-25m
A 40	Max 40m:	70% of water volume at 7-35m
A 50	Max 60m:	70% of water volume at 10-50m
A 60	Max 80m:	70% of water volume at 15-60m

Some data in this publication can be nominal.
 We reserve the right to change specifications and design without prior notice.
 The illustrations do not necessarily show the standard version of the machine.
 Values at MSL (Mean Sea Level) (0 m above sea level at 15°C at 1013,25 hPa / mbar).
 Measurements made at windless conditions.
 Throw length /height varies with wind.
 Areal coverage depending on setting of turning device.

Theory and application of dust suppression

Research in connection to development of dust suppression systems shows that if a number of droplets in the approx. the same size as the dust particle is generated, the changes of collision is high.



AUTOMATIC Dust Control System

DUZTECH Dust Control System for Mist Cannons & Fixed Nozzle Installations

The system controls dust suppression units based on information from weather station, Dust and movement sensors or manual control.

Units can be fully controlled according to the current circumstances.

Communication to dust suppression and water supply units is performed via radio or cable. The system can be connected to internet for supervisory control and remote support.

Mounted in a container for tough environments

The control system is mounted in a container for reliable function in all environments. The container also has a mast for optimal placement of antennas and weather station.



Remote control for flexible usage
The system can be equipped with a remote control making it possible to start and stop groups of units from the site, driving cabs or in the control room.

Weather control for all circumstances

Weather data are collected with a motion free and winter adapted weather station.

The following weather data can be used to control the system:

- Air temperature
- Air humidity
- Wind speed
- Wind direction
- Precipitation

Units can be stopped during heavy rainfall, heating can be turned on at low temperatures and the system can adapt to the wind circumstances.

Wind control works with the wind

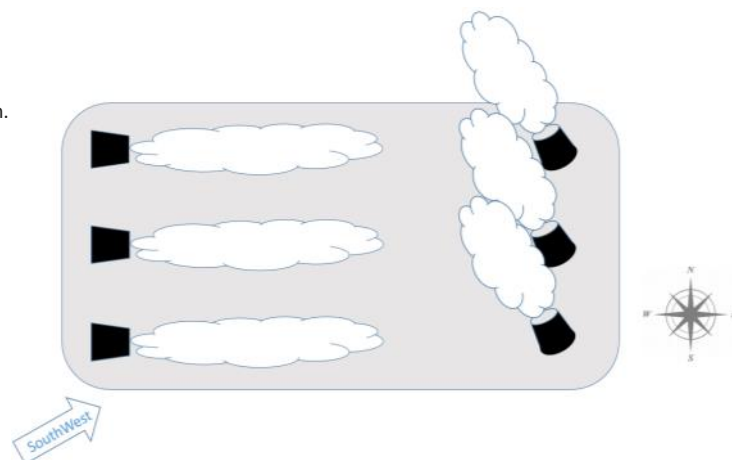
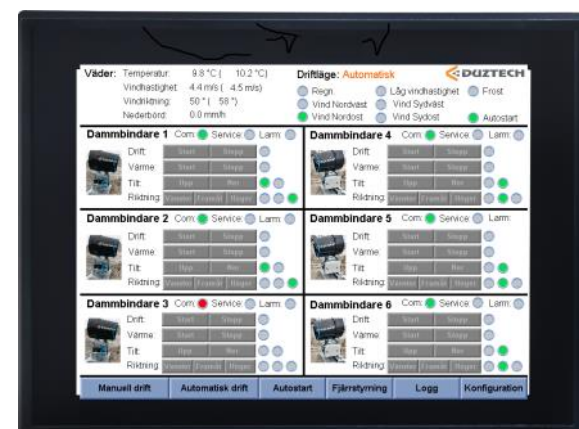
The system controls the horizontal and vertical direction of the units according to the current wind situation. This makes it possible to create a very effective dust suppression in all different wind conditions.

No machines are allowed to work against a strong wind, instead the units with head wind will create a mist barrier by turning upwards in the wind direction. The system behavior can be adjusted according to customer needs.



Control panel with touch

The system is controlled from a touch panel. From the panel the units can be controlled individually and the system can be configured. It is also possible to save and display log data. The system can also be used with a tablet or smartphone via network.



Wind direction is southwest. The west units are directed horizontal and forward, the east units are tilted upwards and turned in a northern direction to create a mist barrier.

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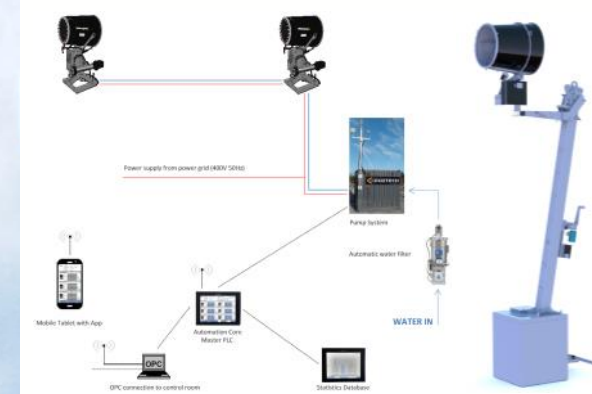
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SYSTEM SOLUTIONS

The use of automation, working with the wind and sensing dust particles saves energy which makes Duztech AUTOMATIC Dust Control System more environmental friendly than standard solutions on the market. The use of a smart automatic Mist Cannons with wind control increase the throwing distance drastically! Measurements show that the throwing distance can increase as much as three times compared to a manual Mist Cannon on the ground. If combined with Duztech HS System for fixed operation at transfer points the system will have an efficiency up to 90%. Sensors allowing the system to notice wind and weather conditions together with dust particles in the surrounding air will make the Duztech Dust Suppression system a clear choice for you!



DUZTECH are capable of providing complete Analysis, Planning and Engineering for your site!

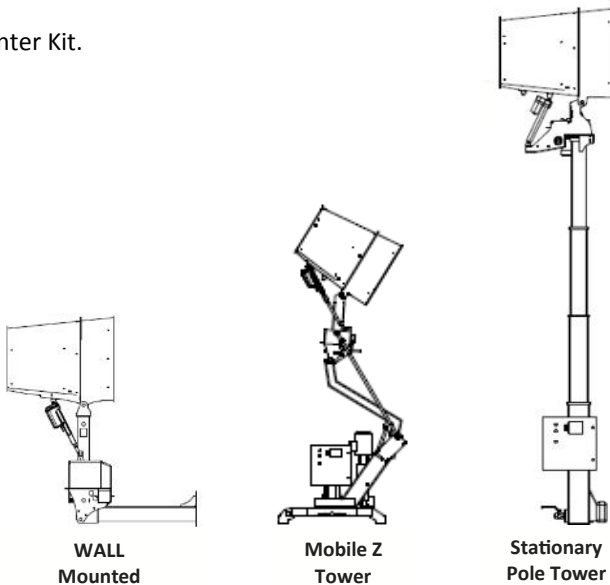


A30 - A40 - A50 - A60 CLU mist cannon

DUZTECH HEAVY DUTY mist cannons are built to last! Equipped with a strong chassis the machines are perfect for the Demolition, Steel and Rental industry. All chassis components are hot dip galvanized. Features as electric tilt and automatic main valve as **standard**. Also standard is automatic swing operation to distribute the water mist over large areas. The units also feature low power consumption, compared to the throwing distance. The flow is adjustable to suit application requirements. The water mist generated by the units have a droplet size between 10-150 microns with a mean droplet size of 70 microns. The machine is ideal for outdoor all round dust suppression and wetting at steel plants, mining operations, demolition, bulk handling, crushing and recycling.

The unit operate below 0°C equipped with Winter Kit.

Droplet size: 10 - 150 microns
Mean droplet size: 70 microns



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HEAVY DUTY



SPECIFICATIONS	A 30	A 40	A 50	A 60
Fan motor rating	5,5 kW	7,5 kW	18,5 kW	30 kW
Pump motor rating	2,2 kW	2,2 kW	2,2 kW	2,2 kW
Current consumption	15 Amps	20 Amps	42 Amps	54 Amps
Power connector size	16 A - 5 pin	32 A - 5 pin	63 A - 5 pin	63 A - 5 pin
Throw	25 - 30 m	35 - 40 m	50 - 60 m	60 - 80 m
Dry weight	435 kg	465 kg	515 kg	690 kg
If connected to generator (generator power output needed)				
	30 kVA	40 kVA	60 kVA	60 kVA

Power cable length	5 m
Specified voltage	400 AC (380-415)
Line connection	L1-L2-L3-N-PE
Frequency	50 Hz
Control panel	Start / Stop - Tilt up/down Turn left/right - Auto turn on/off Turn area setting
Remote control (option)	Hand held wireless remote control with min range of 100 m at free line of sight
Elevation, ELECTRIC	-10 / +50°
Automatic turning system	15° or 30° or 60°
Turning area	All around, no mechanical limit

Water flow	20 - 60 LPM
Water connection	Thread 1" BSP (DN25)
Required in pressure	2 - 10 bar (min flow of 60 LPM)
Water quality	Portable / non portable
Operating temp.	-25°C to +50°C (winter kit needed below 0°C)
Storage temp.	-40°C to +60°
Length	1 400 mm
Width	1 300 mm
Height	1 900 mm (A 60 - 2 100 mm)

STANDARD EQUIPMENT
Booster pump 6-16 bar
Water swivel
Automatic water inlet valve (open at start)
Water drain valve
Pump run dry protection
Filter system 500 micron 3"
Pressure gauges
Automatic turning system
Electric elevation
Hose and Cable holder

OPTIONS
Wireless remote control
Variable throwing distance
Electric Swivel - Unlimited rotation!
Wheel set with three wheels
Dosing pump for additives
Fan barrel with noise reduction
Winter kit
Automatic turning system 330° & Timer function (touch screen)
WALL & TOWER mounted editions
Misting system LOW FLOW - FINE MIST
70 bar pump with 5-60 micron droplets
Flow 8 LPM - Pump 1,5 kW - Filter 60 micron



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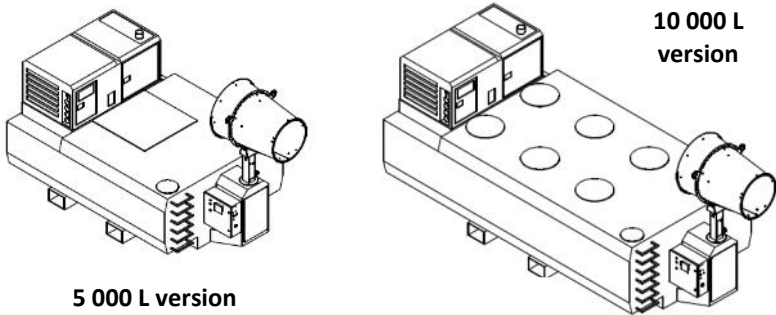
The **DUZTECH TWG** is a self contained dust suppression system.

The mist cannon is mounted on a trailer with integrated water tank and generator set. The mist cannon uses a powerful fan to spread a fine water mist with the purpose of binding airborne dust particles and force them to the ground. The trailer is independent of water and electric supply and can therefore be used where there is no local power or water supply. The machine can be connected to the power grid and/or local water supply. The frame is built for heavy duty operation with an integrated water tank. The water tank and electric generator are placed low which makes it possible for the mist cannon to opearate 350° still having a very compact unit.



The **DUZTECH TWG series** are also available as self contained **SKID/TRUCK** mounted units.

The mist cannon and generator are mounted on a mobile water tank. The units are fitted with fork pockets and can be moved by a wheel loader or fitted to a truck and easily moved between job sites.



SPECIFICATIONS	TWG 40	TWG 50	TWG 60
Fan motor rating	7,5 kW	18,5 kW	30 kW
Pump motor rating	2,2 kW	2,2 kW	2,2 kW
Throw (up to)	35 - 40 m	50 - 60 m	60 - 80 m
Generator	20 kVA	40 kVA	60 kVA
Fuel tank (DIESEL)	55/250 L	105/480 L	160/520 L
Running time generator	13/60 h	13/60 h	12/50 h
Running time water	Full flow 55 LPM (90 min) Low flow 15 LPM (5,5 h) Misting option 8 LPM (10,4 h)		
Control panel	Start / Stop Tilt up/down Turn left/right Auto turn on/off Turn area setting		
Elevation, ELECTRIC	-10 / +50°		
Automatic turning system	15° or 30° or 60°		
Turning area	Mechanical limit +/- 5 ° aligned with tow bar		
Operating temperature	+1°C to +40°C		
SIZE & WEIGHT	TWG 40	TWG 50	TWG 60
Dry weight, MAX	2 850 kg	3 100 kg	3 750 kg
Length	6 200 mm	6 200 mm	6 200 mm
Width	2 230 mm	2 230 mm	2 255 mm
Height	3 150 mm	3 150 mm	3 350 mm

STANDARD EQUIPMENT
Booster pump 6-16 bar
Automatic water valve between tank & cannon
Generator
Variable throwing distance
Automatic turning system
Electric elevation
Water drain valve
Pump run dry protection
Filter system 500 micron 3"
Pressure gauges
5 000 L water tank
Heavy Duty Wheels 400/60x15.5

OPTIONS
Wireless remote control
Dosing pump for additives
Fan barrel with noise reduction
Automatic turning system 330° & Timer function (*touch screen*)
Misting system LOW FLOW - FINE MIST
70 bar pump with 5-60 micron droplets
Flow 8 LPM - Pump 1,5 kW - Filter 60 micron
Extended operational time of Generator
Bigger fuel tank



M5 230V-1 PHASE

DUZTECH M5 mist cannon is a small mobile machine that can be moved by hand. Compact and a weight of only 2,9 kg makes it extremely mobile at indoor demolition sites.

The intensity of the water mist are adjusted by a rotary switch. The built in water tank can be used for quick actions. If used in continues operation a water hose can be connected to the fixed water inlet. The unit feature low power consumption. It's connected to a standard 1 phase 230V wall socket (optional 110V).

The water mist generated by this unit is **extremely fine** and therefore effective against airborne dust, but also for humidification when the ground/surface is sensitive for wetting. The M5 cannon is also suitable for odour control.

The M5 generates a water mist with droplet sizes 7-30 micron.

Droplet size: 7 - 30 microns

SPECIFICATIONS	
Current consumption	3,5 Amps
Specified voltage	230 AC
Frequency	50 Hz
Power connector size	L-N-PE (Schucko) (type F)
Control panel	Buttons
Dry weight	2,9 kg
Length	330 mm
Width	205 mm
Height	360 mm
Throw (up to)	5-10 m
Water tank capacity	3,8 L
Water flow	11 - 16 L/HOUR
Water connection	Thread 3/4" BSP
Required in pressure	1 - 3 bar
Operating temp.	+1°C to +40°C

STANDARD EQUIPMENT
Float valve at water inlet
Built in water tank

OPTION
110 V edition



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MOSQUITO 230V-1 PHASE

DUZTECH MOSQUITO mist cannon is a small machine that can be moved by hand. Compact and light in weight makes it perfect for indoor demolition.

Standard is automatic swing operation to distribute the water mist over larger areas with a throwing distance of 10-15 m. The unit feature low power consumption. It's connected to a standard 1 phase 230V wall socket.

The water mist generated by this unit is **extremely fine** and therefore effective against airborne dust, but also for humidification when the ground/surface is sensitive for wetting. The MOSQUITO cannon are also suitable for odour control.

The MOSQUITO generates a water mist with droplet sizes 10-50 microns with a mean droplet size of 25 microns.

Droplet size: 10 - 50 microns
Mean droplet size: 25 microns

SPECIFICATIONS	
Fan motor rating	1,1 kW
Pump motor rating	0,6 kW
Current consumption	8 Amps
Specified voltage	230 AC
Frequency	50 Hz
Power connector size	L-N-PE (Schucko) (type F)
Control panel	Buttons
Dry weight	110 kg
Length	1 200 mm
Width	750 mm
Height	1 150 mm
Elevation, HAND	-20 to +60°
Throw (up to)	10-15 m
Water flow	2 LPM
Water connection	Thread 1" BSP (DN25)
Required in pressure	2 - 10 bar
Nozzle pressure	70 bar
Filtration system	60 microns
Wheel set	YES
Operating temp.	+1°C to +40°C

STANDARD EQUIPMENT
Booster pump 70 bar
Water drain at shut down
Manual water inlet valve
Pump run dry protection
Filter system 60 micron
Pressure gauges
Automatic turning system
Wheel set



OPTION
WALL mounted edition

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X35 400V - 3 PHASE

DUZTECH X35 mist cannon is a energy efficient machine with high performance. Automatic swing operation up to **350°** to distribute the water mist over larger areas with a throwing distance of 35 - 40 m. The unit feature low power consumption. It's connected to a standard **3 phase** 400V 16A socket.

Droplet size: 10 - 150 microns
Mean droplet size: 70 microns

SPECIFICATIONS	
Fan motor rating	3 kW
Pump motor rating	2,2 kW
Current consumption	13 Amps
Specified voltage	400 AC (380-415)
Frequency	50 Hz
Power connector size	L1-L2-L3-N-PE / 16 A - 5 pin

Control panel	Start / Stop Turn left/right Auto turn on/off
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Throw	35 - 40 m
Water flow	15 - 30 LPM
Water connection	Thread 1" BSP (DN25)
Required in pressure	2 - 10 bar (min flow of 30 LPM)
Water quality	Portable / non portable

Elevation, HAND	-20 / +60°
Automatic turning system	25° to 350° in steps of 25°
Turning area	350°
Operating temp.	-25°C to +50°C (winter kit needed below 0°C)
Storage temp.	-40°C to +60°

Length	910 mm
Width	930 mm
Height	2 100 mm
Dry weight	225 kg

STANDARD EQUIPMENT

Booster pump 6 - 16 bar, Water swivel
Power connector placed on fork chassis
Pump run dry protection, Filter system 300 micron 1"
Pressure gauge (nozzle), Water drain valve
Automatic turning system, Chassis with fork pockets
Automatic water inlet valve (*open at start*)

OPTIONS

Wireless remote control
Dosing pump for additives
Winter Kit
Misting system LOW FLOW - FINE MIST
70 bar pump with 5-60 micron droplets
Flow 8 LPM - Pump 1,5 kW - Filter 60 micron
POLE mounted (no fork pockets)



Easy accessible!

- Power connector
- Water filter
- Water drain
- Water connection

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X15 230V - 1 PHASE or 115V - 1 PHASE

DUZTECH X15 mist cannon is built on the same robust and compact frame as the X-35.

The unit feature low power consumption and is he obvious option when power is limited. It's connected to a standard **1 phase** 230V wall socket (16A). Optional 110V 32A. Automatic swing operation up to **350°** to distribute the water mist over larger areas with a throwing distance of 15 - 20 m.

Droplet size: 10 - 150 microns
Mean droplet size: 70 microns

SPECIFICATIONS	
Fan motor rating	1,1 kW
Pump motor rating	1,2 kW
Current consumption	12 Amps
Specified voltage	230 AC (220-240)
Frequency	50 Hz
Power connector size	L-N-PE (Schucko) (type F)

Control panel	Start / Stop Turn left/right Auto turn on/off
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Throw	15 - 20 m
Water flow	15 - 25 LPM
Water connection	Thread 1" BSP (DN25)
Required in pressure	2 - 10 bar (min flow of 25 LPM)
Water quality	Portable / non portable

Elevation, HAND	-20 / +60°
Automatic turning system	25° to 350° in steps of 25°
Turning area	350°
Operating temp.	-25°C to +50°C (winter kit needed below 0°C)
Storage temp.	-40°C to +60°

Length	910 mm
Width	930 mm
Height	2 100 mm
Dry weight	205 kg

STANDARD EQUIPMENT

Booster pump 6 - 8 bar
Water swivel
Power connector placed on fork chassis
Pump run dry protection
Filter system 300 micron 1"
Pressure gauge (nozzle)
Water drain valve
Automatic turning system
Chassis with fork pockets
Automatic water inlet valve (*open at start*)

OPTIONS

110 V edition (110/115V 50Hz 23Amps)
Wireless remote control
Dosing pump for additives
Winter Kit
Misting system LOW FLOW - FINE MIST
70 bar pump with 5-60 micron droplets
Flow 8 LPM - Pump 1,5 kW - Filter 60 micron
POLE mounted (no fork pockets)



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HS SYSTEM

DUZTECH HS SYSTEM are a fixed system for reduction of dust particles. The flow rate is low and thereby the moisture content is kept low. Low flow rate is also of great importance if the availability of water is limited. The water droplets are adapted for PM 2,5 - PM 10 particles.

SPECIFICATIONS	HS2	HS4	HS8	HS13
Water flow	2 LPM	4 LPM	8 LPM	13 LPM
Pump motor rating	0,55 kW	1,1 kW	1,5 kW	2,1 kW

Throw (up to) 5-15 m depending of installation angle

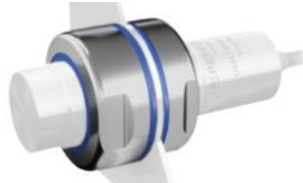
Power cable length	5 m
Specified voltage	230 VAC (220-240)
Frequency	50 Hz
Line connection	L1-N-PE
Power connector size	2 pin + PE (Schucko) (type F)
Socket fuse	16 Amps

Control panel Start / Stop
MAN / AUTO

Water connection	Thread 1" BSP (DN25)
Required in pressure	2 - 10 bar (min flow of 15 LPM)
Water quality	Portable
Length, max	780 mm
Width	410 mm
Height	470 mm
Dry weight	60 kg

- STANDARD EQUIPMENT**
- Booster pump 60-100 bar
 - Pump run dry protection
 - High speed nozzles 2 pcs
 - High pressure hose 2 x 5m
 - Nozzles adapted for PM 2,5 - PM10 particle size
 - Automatic (electric) water inlet valve (open at start, close at stop)
 - Manual water drain
 - Filter system 60 micron
 - Pressure gauges

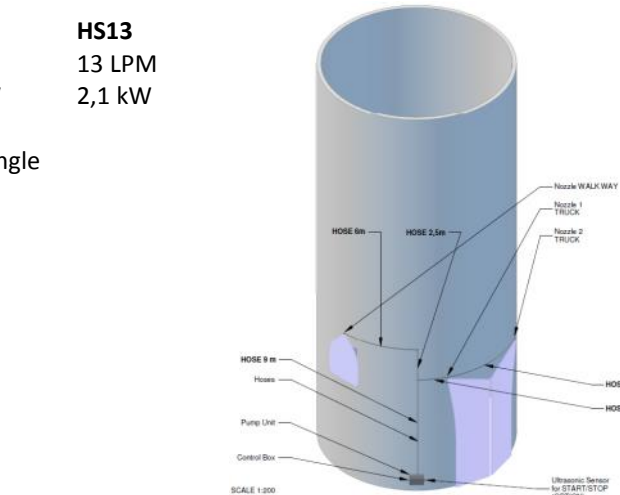
- OPTIONS**
- Additional nozzles
 - High pressure hose
 - Wireless remote control
 - Ultrasonic sensor detection
 - Filter with automatic cleaning
 - Heating



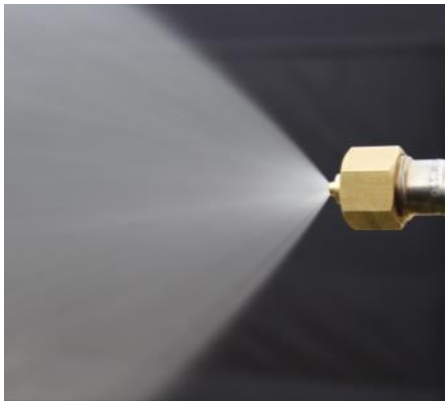
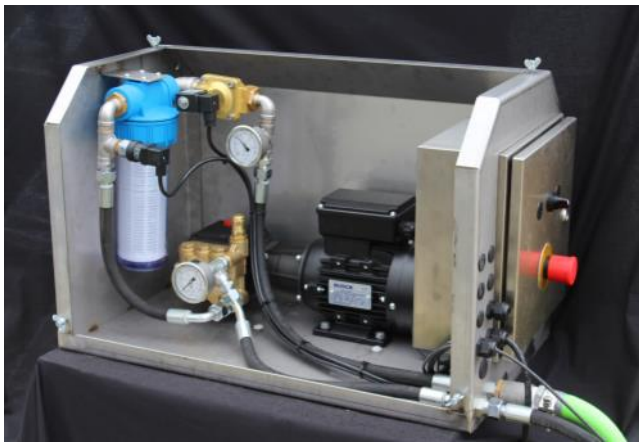
Ultrasonic Sensor



Wireless Remote Control



Consult DUZTECH to determine OPTIMAL flow rate and placement



NOZZLE
↑
PUMP SYSTEM
↑
FILTER
↑
WATER SUPPLY

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SPECIFICATIONS	
Fan motor rating	75 kW
Pump motor rating	3 kW
Current consumption	123 Amps
Throw	150 - 200 m
Dry weight	2 100 kg
Specified voltage	400 AC (380-415)
Line connection	L1-L2-L3-N-PE
Frequency	50 Hz
Control panel	Start / Stop - Tilt up/down Turn left/right - Auto turn on/off Turn area setting
Remote control	Hand held wireless remote control with min range of 100 m at free line of sight
Elevation, HYDRAULIC	-20 / +45°
Automatic turning system	15° or 30° or 60°
Turning area	All around, no mechanical limit
Water flow	30 - 70 LPM (adjustable)
Water connection	Thread 1" BSP (DN25)
Required in pressure	2 - 10 bar (min flow of 70 LPM)
Water quality	Portable / non portable
Operating temp.	-25°C to +40°C (winter kit needed below 0°C)
Storage temp.	-30°C to +60°
Length	3 200 mm
Width	2 200 mm
Height	Transport: 2 540 mm Operational: 2 930 mm



- STANDARD EQUIPMENT**
- Booster pump 7-10 bar
 - Water swivel
 - Automatic water inlet valve
(opens at start)
 - Water drain valve
 - Pump run dry protection
 - Filter system 500 micron
 - Pressure gauges
 - Automatic turning system
 - Hydraulic elevation

- OPTIONS**
- Remote Control
 - Electric Swivel
 - Automatic turning system 330°
with touch screen

This preparation guide helps you prepare for the commissioning of your new dust suppression machine.



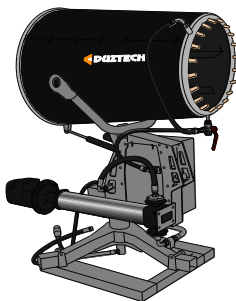
Water

The machines consumes less than 70 liters per minute.
The pressure need is minimum 2 bar. There are many types of connections so let us know which type you want on your machine.
All machines have 1-inch pipe thread as standard.
Do not forget the water hose!



Electric Power

External power supply is required.
Check that voltage, amps and frequency match your machine.
If using a generator please consult Duztech.
Do not forget the power cable!



Placement

Consider how you will use the machine.
Fixed or mobile installation?
The machine shall stand on a flat surface.
Is remote control necessary?



Winter operation

Should the machine be used at temperatures below freezing point?
In that case the machine should be protected against frost.
Remember that the hoses freezes quickly if there is no flow.
Disconnect and drain hoses when not in use!



CONTACT YOUR LOCAL DUZTECH DEALER TODAY!



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