# Make it Rain

raincanon

A modern provider within dust suppression, wildfire fighting and air pollution.

PRODUCT CATALOGUE

**Dust suppression** 



What do we do? Raincanon develop and manufacture specialised cannons for fighting wildfires, spraying fluids, dust suppression, crowd cooling, air pollution and odour control.

Most of our cannons are developed and used for urgent deployment to prevent, limit and fight wildfires. For this reason we always maintain a healthy stock of cannons for swift handling and global delivery by air freight.



**The Raincanon team** has over 15 years of experience designing, developing and manufacturing mist cannons. We started with snow cannons which later developed into dust suppression mist cannons for industrial use primarily at mines and construction sites.

The team at Raincanon are continually innovating to produce cannons for more specialised, different uses, improved range, additional functionality, easier operation, longer lifespan and more efficient operation.

Out of this continuous innovation the Raincanon brand was born that focuses on high-performance mist cannons and on emergency applications with rapid deployment of the cannons. These applications include, but are not limited to, fixed or mobile wildfire protection, property fire protection, mobile vehicle-based solutions for dust suppression, crowd cooling, air pollution and odour control.

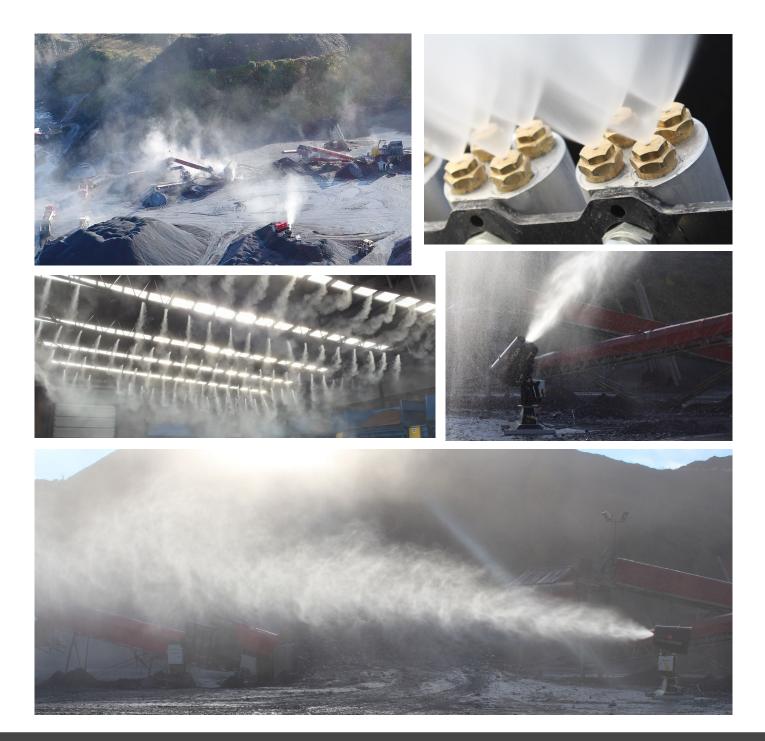


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## Dust suppression / Mist cannons are specifically designed

to spray mist for use against dust, odour and air pollution control in different applications.

The cannons can be mounted as permanent or mobile installations for quick and efficient misting in steel industries, mining, demolition, crushing, recycling, cement industries, bulk handling and odour control.



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**Demolition** often create huge amounts of dust and pollution. Using dust suppression leads to a better environment both for workers, residents and machines.

Use mobile cannons with a high output and mixed sized waterdrops. The cannons can be placed at high positions or aiming directly at the source, it is also possible to use automatic turning for quick and efficient misting.



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## Concrete crushing cause massive amounts of dust. Using

dust suppression leads to a better environment for both workers and machines.

Use fixed cannons with a constant output and medium sized waterdrops. The cannons can be placed at high positions or aiming directly at the source, it is also possible to use automatic turning for quick and efficient misting.



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**Quarry** crushing and transportation of gravel and stones can be the source of severe dust problems. Using dust suppression leads to a better environment both for workers, neighbours and machines.

Use fixed cannons and systems with a constant output and medium sized waterdrops. The cannons can be placed at high positions or aiming directly at the source, use automatic turning for quick and efficient misting.



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**Ports** handle several different materials causing dust problems. Using dust suppression leads to a better environment both for workers, neighbours and machines.

Use fixed or mobile cannons depending on the circumstances. The waterdrop size must be adapted to the material causing the problems. The cannons can be placed at high positions or aiming directly at the source.



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## **Coal yard** handling often cause severe dust problems. Using

dust suppression leads to a better environment both for workers neighbours and machines.

Use fixed cannons or systems with a constant output and medium sized waterdrops. The cannons can be placed at high positions or aiming directly at the source.





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Steel plant slag handling generate large amounts of dust. Using

dust suppression leads to a better environment both for workers neighbours and machines.

Use fixed cannons producing medium sized waterdrops. The cannons can be placed at high positions or aiming directly at the source. Preferably automated to reduce the amount of water and adapt to the outdoor conditions.



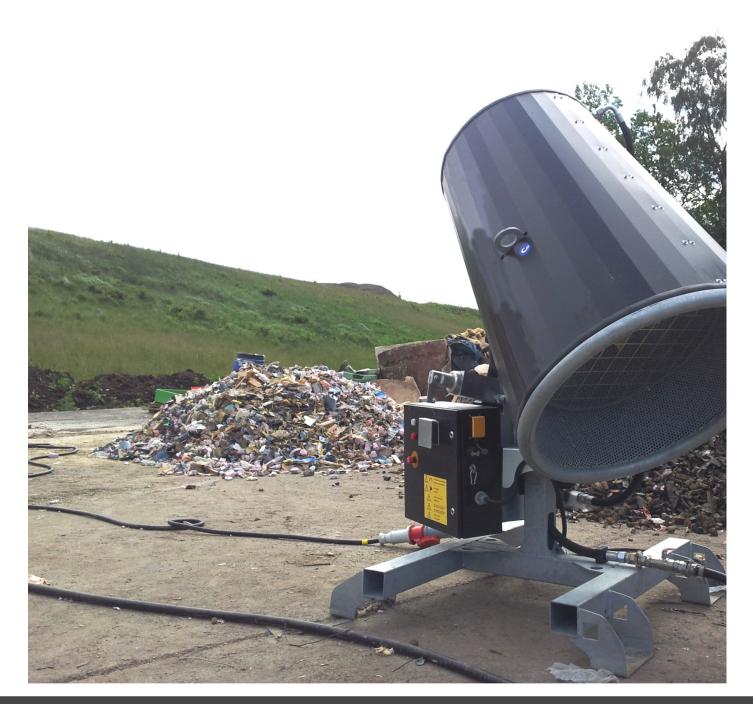


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**Recycling** involves activities leading to both dust and odour problems. Using dust suppression leads to a better environment both for workers neighbours and machines. The machines also reduce odors.

Use fixed and mobile cannons producing small to medium sized waterdrops. The cannons can be placed at high positions or aiming directly at the source.

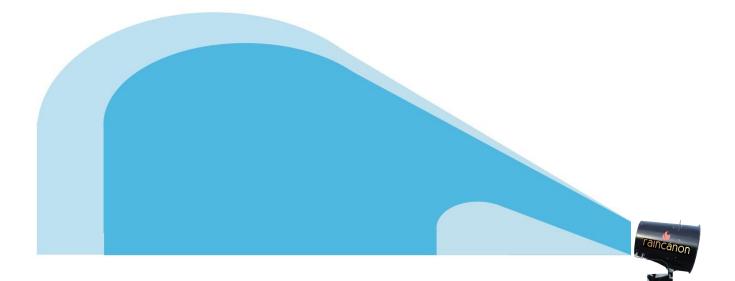


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## Throwing distance of fan machines

In theory and reality...



D35	Max 35 m:	70% of water volume at 5-30 m
D45	Max 45 m:	70% of water volume at 7-40 m
D60	Max 60 m:	70% of water volume at 10-50 m
D80	Max 80 m:	70% of water volume at 15-60 m

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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.

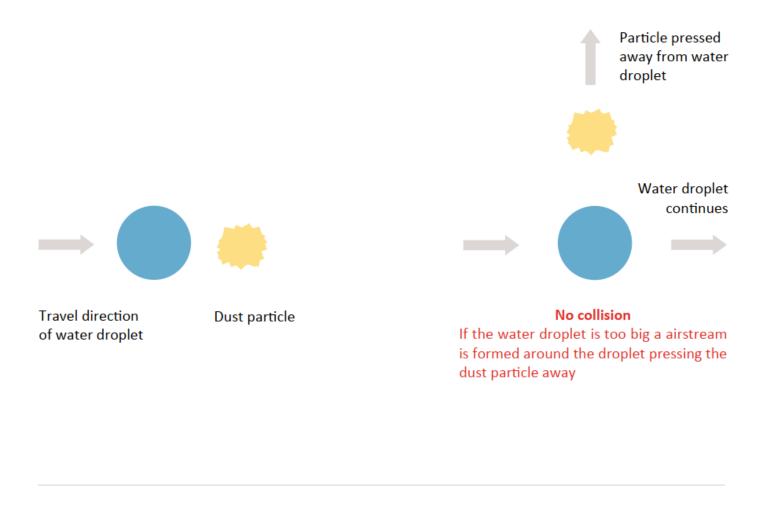
Throw length /height varies with wind.

Areal coverage depending on setting of turning device.

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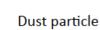
## Theory and application of dust suppression

Research in connection to development of dust suppression systems shows that if a number of droplets in approximatly the same size as the dust particle results in an efficient dust suppression.



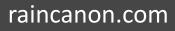


Travel direction of water droplet





Collision takes place! **EFFECTIVE DUST SUPPRESSION!** 





## Raincanon D35 is a high-performance Dust Suppression / Mist Cannon with 25-35 meter range

used for dust, odour and air pollution control in different applications. Equipped with a robust frame the D35 is built to last and can be a mobile or permanent installation. The D35 is well suited for heavy duty applications such as Mining, Crushing, Demolition, Rental and Cement industry. Features as electric tilt, automatic main valve and remote control are standard. Automatic oscillation up to 360° to distribute water mist over large areas are also standard. The D35 is connected to a standard 16A socket. It can be powered by 400V/50Hz from the main grid or from a generator. A function to reduce power peaks at start up is built in as standard in the control system. The flow rate is adjustable to suit different applications. The water mist droplet size is between 20-200 microns which makes the D35 ideal for various applications.

### STEEL - MINING - DEMOLITION BULK HANDLING - CRUSHING - RECYCLING CROWD COOLING - CEMENT - RENTAL ODOUR CONTROL



### Specifications

Effective range 25-35 meter Area covered 3.800 m<sup>2</sup> Voltage / Frequency 400 VAC / 50 Hz Current consumption 14 Amps Fan motor power 5,5 kW Pump motor power 2,2 kW Power connector 16 A - 5 pin Water flow 12 - 60 LPM Water connection Thread 1" BSP (DN25) Required in pressure 2-12 bar Water quality Portable / Filtered Tilt angle -20° / +50° Automatic oscillation 10° to 360° steps of 10° Operating temp. +1°C to +50°C Length with fork stand 1.160 mm Width with fork stand 1.100 mm Height with fork stand 2.170 mm Dry weight 395 kg

#### **Standard Equipment**

Electric tilt Booster pump Run dry protection Filter system 300 micron Power peak override at generator operation Water drain valve Automatic oscillation system Chassis with heavy duty fork pockets Electric water main valve

Optional Equipment Remote control



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## Raincanon D45 is a high-performance Dust Suppression / Mist Cannon with 35-45 meter range

used for dust, odour and air pollution control in different applications. Equipped with a robust frame the D35 is built to last and can be a mobile or permanent installation. The D45 is well suited for heavy duty applications such as Mining, Crushing, Demolition, Rental and Cement industry. Features as electric tilt, automatic main valve and remote control are standard. Automatic oscillation up to 360° to distribute water mist over large areas are also standard. The D45 is connected to a standard 32A socket. It can be powered by 400V/50Hz or 480 VAC/60Hz from the main grid or from a generator. A function to reduce power peaks at start up is built in as standard in the control system. The flow rate is adjustable to suit different applications. The water mist droplet size is between 20-200 microns which makes the D45 ideal for various applications.

STEEL - MINING - DEMOLITION BULK HANDLING - CRUSHING - RECYCLING CROWD COOLING - CEMENT - RENTAL ODOUR CONTROL



### Specifications

Effective range 35-45 meter Area covered 6350 m<sup>2</sup> Voltage / Frequency 400 VAC/50 Hz or 480 VAC/60Hz Current consumption 19A @ 400VAC or 27A @ 480 VAC Fan motor power 7,5 kW @ 400 VAC or 11kW @ 480 VAC Pump motor power 2,2 kW @ 400VAC or 3 kW @ 480 VAC Power connector 32 A - 5 pin Water flow 12 - 60 LPM Water connection Thread 1" BSP (DN25) Required in pressure 2-12 bar Water quality Portable / Filtered Tilt angle -20° / +50° Automatic oscillation 10° to 360° steps of 10° Operating temp. +1°C to +50°C Length with fork stand 1.160 mm Width with fork stand 1.100 mm Height with fork stand 2.170 mm Dry weight 415 kg

#### **Standard Equipment**

Electric tilt Booster pump Run dry protection Filter system 300 micron Power peak override at generator operation Water drain valve Automatic oscillation system Chassis with heavy duty fork pockets Electric water main valve

#### **Optional Equipment**

Remote control



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## Raincanon D60 is a high-performance Dust Suppression / Mist Cannon with 50-60 meter range

used for dust, odour and air pollution control in different applications. Equipped with a robust frame the D60 is built to last and can be a mobile or permanent installation. The D60 is well suited for heavy duty applications such as Mining, Crushing, Demolition, Rental and Cement industry. Features as electric tilt, automatic main valve and remote control are standard. Automatic oscillation up to 360° to distribute water mist over large areas are also standard. The D60 is connected to a standard 63A socket. It can be powered by 400V/50Hz from the main grid or from a generator. A function to reduce power peaks at start up is built in as standard in the control system. The flow rate is adjustable to suit different applications. The water mist droplet size is between 20-200 microns which makes the D60 ideal for various applications.

### STEEL - MINING - DEMOLITION BULK HANDLING - CRUSHING - RECYCLING CROWD COOLING - CEMENT - RENTAL ODOUR CONTROL



#### Specifications

Effective range 50-60 meter Area covered 11300 m<sup>2</sup> Voltage / Frequency 400 VAC/50 Hz Current consumption 42 Amps Fan motor power 18,5 kW Pump motor power 2,2 kW Power connector 63 A - 5 pin Water flow 12 - 60 LPM Water connection Thread 1" BSP (DN25) Required in pressure 2-12 bar Water quality Portable / Filtered Tilt angle -20° / +50° Automatic oscillation 10° to 360° steps of 10° Operating temp. +1°C to +50°C Length with fork stand 1.160 mm Width with fork stand 1.100 mm Height with fork stand 2.170 mm Dry weight 445 kg

#### **Standard Equipment**

Electric tilt Booster pump Run dry protection Filter system 300 micron Power peak override at generator operation Water drain valve Automatic oscillation system Chassis with heavy duty fork pockets Electric water main valve

Optional Equipment Remote control



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## Raincanon D80 is a high-performance Dust Suppression / Mist Cannon with 55-80 meter range

used for dust, odour and air pollution control in different applications. Equipped with a robust frame the D80 is built to last and can be a mobile or permanent installation. The D80 is well suited for heavy duty applications such as Mining, Crushing, Demolition, Rental and Cement industry. Features as electric tilt, automatic main valve and remote control are standard. Automatic oscillation up to 360° to distribute water mist over large areas are also standard. The D80 is connected to a standard 63A socket. It can be powered by 400V/50Hz from the main grid or from a generator. A function to reduce power peaks at start up is built in as standard in the control system. The flow rate is adjustable to suit different applications. The water mist droplet size is between 20-200 microns which makes the D80 ideal for various applications.

### STEEL - MINING - DEMOLITION BULK HANDLING - CRUSHING - RECYCLING CROWD COOLING - CEMENT - RENTAL ODOUR CONTROL



#### **Specifications**

Effective range 55-80 meter Area covered 20100 m<sup>2</sup> Voltage / Frequency 400 VAC/50 Hz Current consumption 55 Amps Fan motor power 30 kW Pump motor power 2,2 kW Power connector 63 A - 5 pin Water flow 25 - 100 LPM Water connection Thread 1" BSP (DN25) Required in pressure 2-12 bar Water quality Portable / Filtered Tilt angle -20° / +50° Automatic oscillation 10° to 360° steps of 10° Operating temp. +1°C to +50°C Length with fork stand 1.160 mm Width with fork stand 1.100 mm Height with fork stand 2.170 mm Dry weight 500 kg

#### **Standard Equipment**

Electric tilt Booster pump Run dry protection Filter system 300 micron Power peak override at generator operation Water drain valve Automatic oscillation system Chassis with heavy duty fork pockets Electric water main valve

Optional Equipment Remote control



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## Raincanon A150 is a high-performance Dust Suppression / Mist Cannon with 130-150 meter

range used for dust, odour and air pollution control in different applications. Equipped with our most robust frame the A150 is built to last and is well suited for heavy duty applications such as Mining, Crushing, Demolition, Rental and Cement industry

The water mist droplet size is between 10-150 microns which makes the A150 is ideal for outdoor all-round dust suppression and wetting at steel plants, mining operations, demolition, bulk handling, crushing and recycling.

### STEEL - MINING - DEMOLITION BULK HANDLING - CRUSHING - RECYCLING CROWD COOLING - CEMENT - RENTAL ODOUR CONTROL



### Specifications

Effective range 130-150 meter Area covered 70650 m<sup>2</sup> Voltage / Frequency 400 VAC/50 Hz Current consumption 145 Amps Fan motor power 75 kW Pump motor power 7,5 kW Water flow 200-300 LPM Water connection Thread 1,5" BSP (DN40) Nozzles 8 pcs CLU Required in pressure 2-10 bar Water quality Portable / non portable Tilt angle -20° / +45° Automatic oscillation 15° or 30° or 60° Operating temp. +1°C to +50°C Length 2630 mm Width 2000 mm Height 2650 mm Dry weight 2100 kg

### **Standard Equipment**

Hydraulic tilt Booster pump Run dry protection Filter system 500 micron Automatic oscillation system Water swivel Pressure gauges Automatic (Electric) water inlet valve

**Optional Equipment** Remote control Automatic turning system with touch screen



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## Raincanon DSC45 is a high-performance self-contained Dust Suppression / Mist Cannon

used for dust, odour and air pollution control in different applications. The cannon is mounted on a trailer with integrated water tank and generator set. The trailer is independent of water and electric supply and can therefore be used where there is no local power or water supply. The water mist droplet size is between 20-200 microns which makes the DSC45 ideal for various applications.

### STEEL - MINING - DEMOLITION BULK HANDLING - CRUSHING - RECYCLING CROWD COOLING - CEMENT - RENTAL ODOUR CONTROL



### Specifications

Effective range 35-45 meter Area covered 6350 m<sup>2</sup> Fan motor power 7,5 kW Pump motor power 2,2 kW Generator 20 kVa Fuel tank (DIESEL) 55L / 250 L Running time generator 13 h / 60 h Water flow 12 - 60 LPM Running time water High flow (55 LPM) 90 min Low flow (15 LPM) 330 min Water quality Portable / Filtered Tilt angle -20° / +50° Automatic oscillation 10° to 360° steps of 10° Operating temp. +1°C to +40°C Length 6200 mm Width 2230 mm Height 3150 mm Dry weight 2850 kg

### **Standard Equipment**

Wireless remote control Generator Electric tilt Booster pump Run dry protection Filter system 300 micron Power peak override at generator operation Water drain valve Automatic watervalve between tank and cannon Automatic oscillation system Heavy duty wheels 400/60x15.5 5000 L water tank

**Optional Equipment** 

10000 L water tank



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## Raincanon DSC60 is a high-performance self-contained Dust Suppression / Mist Cannon

used for dust, odour and air pollution control in different applications. The cannon is mounted on a trailer with integrated water tank and generator set. The trailer is independent of water and electric supply and can therefore be used where there is no local power or water supply. The water mist droplet size is between 20-200 microns which makes the DSC60 ideal for various applications.

### STEEL - MINING - DEMOLITION BULK HANDLING - CRUSHING - RECYCLING CROWD COOLING - CEMENT - RENTAL ODOUR CONTROL



### Specifications

Effective range 50-60 meter Area covered 11300 m<sup>2</sup> Fan motor power 18,5 kW Pump motor power 2,2 kW Generator 40 kVa Fuel tank (DIESEL) 105L / 480 L Running time generator 13 h / 60 h Water flow 12 - 60 LPM Running time water High flow (55 LPM) 90 min Low flow (15 LPM) 330 min Water quality Portable / Filtered Tilt angle -20° / +50° Automatic oscillation 10° to 360° steps of 10° Operating temp. +1°C to +40°C Length 6200 mm Width 2230 mm Height 3150 mm Dry weight 3100 kg

### **Standard Equipment**

Wireless remote control Generator Electric tilt Booster pump Run dry protection Filter system 300 micron Power peak override at generator operation Water drain valve Automatic watervalve between tank and cannon Automatic oscillation system Heavy duty wheels 400/60x15.5 5000 L water tank

**Optional Equipment** 

10000 L water tank



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## Raincanon HS SYSTEM is 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 which makes the HS SYSTEM ideal for various applications. Number of nozzles and length of hoses are adapted according to customer requirements. Throwing distance between 5 - 15 m depending on installation angle.



#### **Specifications**

#### HS2

Pump motor power 0,55 kW Water flow 2 LPM

#### HS4

Pump motor power 1,1 kW Water flow 4 LPM

### HS8

Pump motor power 1,5 kW Water flow 8 LPM

### HS12

Pump motor power 2,1 kW Water flow 12 LPM

Voltage / Frequency 230VAC / 50 Hz Power connector 2 pin + PE (Schucko) Socket fuse: 16 Amps Water connection Thread 1" BSP (DN25) Required in pressure 2-10 bar Water quality Portable / Filtered Operating temp. +1°C to +40°C

### **Standard Equipment**

Booster pump 60 - 100 bar Pump run dry protection Filter system 60 micron Manual water drain valve Automatic water inlet valve Pressure gauges

### **Optional Equipment**

Wireless remote control Ultrasonic sensor detection Filter with automatic cleaning Heating



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## Preparation

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 Raincanon 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!



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## Contact

Do you want to:

- Get an answer to a question?
- Book a meeting with us to discuss our raincanon products and services and how we may be of assistance to you?
- Receive a proposal for a comprehensive fire protection solution, dust suppression solution or mobile crowd cooling solution?

### Please contact us.

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