



**DUST, ODOUR  
AND COOLING  
SPECIALISTS**

DISTRIBUTORS OF

**SPRAY  
STREAM** 

 **JET-ZONE**  
*dust suppression for shredders*



# Savic Group

Spraystream is developed by the Belgian machine manufacturer Savic Group.

We all like to reside in a healthy, dust-free environment. However, the spread of dust cannot be avoided in some sectors and is harmful to the environment and your health. Health and environmental regulations continue to become increasingly stringent in this respect. In other words: dust control is essential. Spraystream offers cutting-edge fogging and misting technology that reduces the spread of dust by about 90%. This allows you to create a dust-free, safe work environment for your employees, but also the entire neighbourhood.

Our ecological dust prevention systems also contribute to a more sustainable world thanks to their limited water and energy consumption. The use of water atomisation allows for the minute droplets maximising effectiveness over the largest possible surface area.

In addition, our innovative solutions help to suppress unpleasant odours and allow for the cooling and decontamination of the space. Always tailored to the extent of your issue and in compliance with the latest industrial standards.

# biOx Environmental

biOx Environmental, Dust, Odour and Cooling Specialists have been in the industry since the year 2000.

Our fixed line systems were the stable offering for dust and odour control, offering high-pressure low volume fogging systems. It wasn't until one of our clients required something better suited for outdoors, and mobile, did we team up with Savic.

Since 2012 biOx has maintained a strong relationship with Savic Group with similar business values and vision: designing sustainable, innovative, and high-quality solutions to handle air pollution requirements.

biOx continues to work closely with the Savic Group to ensure the best quality and most up-to-date technologies are available to clients across New Zealand and Australia – whether Spraystream Cannons, Jetzone Modular Systems or Fixed Line.

## Product range



### Spraystream cannons .....p3

Our advanced fog cannons suppress industrial dust, odour, and heat control.



### Modular systems for shredders .....p14

Our cutting-edge modular systems for crushers and shredders in order to control dust issues at the source.



### Fixed nozzle systems and customisation .....p17

A dust or odour issue sometimes requires a more decisive approach. Our fixed nozzle systems are tailored to your issue.

**“Our job is to create a healthy and safe environment.”**

# Spraystream cannons

The Spraystream range includes a variety of sizes and different component options for indoor and outdoor applications. The product range includes, cannons alone, mounted on towers or poles, wall mounted, trailer or skid units, to fully mobile and autonomous units.



**SPRAY > STREAM**  
DUST SUPPRESSION TECHNOLOGY

## General concept

### NOZZLE TECHNOLOGY

- › Quick change multi piece nozzle system
- › Last chance filter
- › Low water consumption and tiny droplets
- › Nozzles in stainless steel
- › No need for Teflon® or Loctite®
- › Selection of interchangeable nozzles

### AIRFLOW

- › Straightened stable laminar airflow

### CENTRAL NOZZLE

- › For more directed water droplets

### WATERFLOW

- › Low water flow for dust suppression
- › Water saving options available

### BOOSTER PUMP

- › Spraystream uses the highest quality pumps with worldwide support

### GALVANIZED STRUCTURE

- › Hot dipped galvanized undercarriage

### FORKLIFT LOOPS

- › Easy to transport the machine with forklift
- › 2 way pocketholes are available

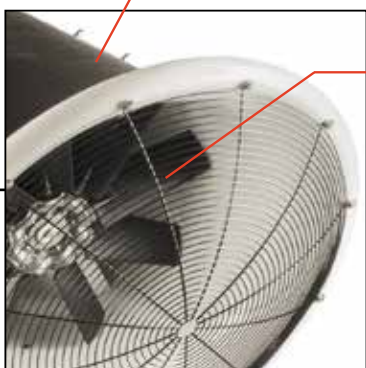


#### CONE

Noise dampening composite material  
Aerodynamic LAVAL shaped lightweight cones  
Extremely corrosion resistant  
Mechanical very strong

#### MOTOR FAN

High efficiency motors  
2 speed motors available for  
noise and throw reduction  
Maintenance free



#### FAN TECHNOLOGY

Low noise  
High efficiency fan  
Softstarted fan  
Composite blades  
Slowspeed concept  
Spraystream is using  
large diameters

#### WATER FILTER

2 level filtration system  
Protect the whole machine  
Pressure monitoring  
Washable filter  
Filter is good visible and  
protected



#### TRANSPORTLOCK



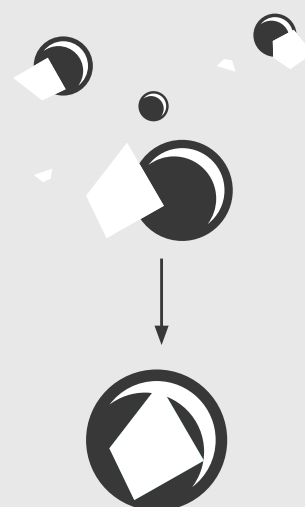
#### ELECTRICAL CABINET

A simple 5 button operable machine  
Logic controller included  
All protectors and safeties included  
Customized control programs possible  
Standard WW components  
Multi voltage cabinets available

#### ROTATION 360°

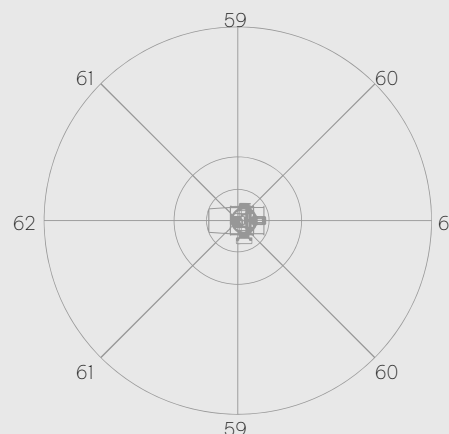
## The Spraystream technology

If small dust particles come into contact with mist particles, the two substances merge and fall down as a single object. This is not the case when using large water droplets, where the dust particles move around the droplets. This is how we control dust using as little water as possible, addressing your dust issues in a very efficient manner.



## Noise emission

Savic Group developed silenced fans and cone design in order to reduce noise emissions. Reducing noise levels to 60 dB(A) within a radius of 20 meters for our most popular models.



## Standard machines



TYPE: SPRAYSTREAM S2.2 HP | SS25i Cart

THROW: 25 M  
MAX. PRESS. : 80 BAR  
WATERFLOW\* : 6.5 LPM  
DIMENSION: 1350x1200x1950 mm  
WEIGHT: 280 kg



TYPE: SPRAYSTREAM PLATFORM  
S2.2 (HP) | SS25i

THROW: 30 M  
MAX. PRESS. : 20 (80) BAR  
WATERFLOW\* : 9.5/19 LPM  
DIMENSION: 1250x1100x2700 mm  
WEIGHT: 400 kg



TYPE: SPRAYSTREAM S4.0 | SS35i

THROW: 35 M  
MAX. PRESS. : 20 BAR  
WATERFLOW\* : 10-20 LPM  
DIMENSION: 1450x1600x2000 mm  
WEIGHT: 350 kg



TYPE: SPRAYSTREAM S4.0 HP | SS35i

THROW: 35 M  
MAX. PRESS. : 80 BAR  
WATERFLOW\* : 13 LPM  
DIMENSION: 1450x1600x2000 mm  
WEIGHT: 350 kg

\*WATERFLOW: CAN BE MODIFIED DEPENDING ON THE APPLICATION



TYPE: SPRAYSTREAM S7.5 | SS50i, S11.0 | SS60i, S15.0 | SS70i, S18.5 | SS80i

THROW: 50-80 M  
 MAX. PRESS.: 20 BAR  
 WATERFLOW\*: 20/40, 30/60 LPM  
 DIMENSION: 1550-1800x1400-1600  
 x2150-2250 mm  
 WEIGHT: 525-675 kg



TYPE: SPRAYSTREAM S7.5 | SS50i, S11.0 | SS60i, S15.0 | SS70i, S18.5 | SS80i

THROW: 50-80 M  
 MAX. PRESS.: 80 BAR  
 WATERFLOW\*: 20/40, 30/60 LPM  
 DIMENSION: 1550-1800x1400-1600  
 x2150-2250 mm  
 WEIGHT: 525-675 kg



TYPE: SPRAYSTREAM S30.0 | SS100i

THROW: 100 M  
 MAX. PRESS.: 20 BAR  
 WATERFLOW\*: 90 LPM  
 DIMENSION: 1800x1600x2300 mm  
 WEIGHT: 650 kg



TYPE: SPRAYSTREAM S75.0 | SS150i

THROW: 150 M  
 MAX. PRESS.: 20 BAR  
 WATERFLOW\*: 200 LPM  
 DIMENSION: 2877x2916x2685 mm  
 WEIGHT: 2500 kg

## Options

There are a wide variety of options available in order to personalize your Spraystream dust suppression machine.



### REMOTE CONTROL

With this option the cannon can be controlled from a distance up to 300m.



### LIFTING BRACKET

The lifting bracket allows easy handling of the cannon with an excavator or crane.



### WATER CUTOFF VALVE

The valve cuts the water supply when the pump is not activated.



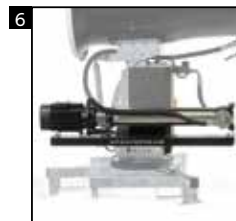
### SEGMENTED NOZZLERING

This option allows you to close one segment of the nozzle ring manually. This reduces water consumption by 50%.



### WHEELSET

Easy on-site mobility



### PUMP

A bigger pump gives you more waterflow or more pressure.



### ELECTRICAL VERT. MOVEMENT

The machine comes standard with a manual jack in order to change the angle. This movement can be automated with an electric motorized jack.



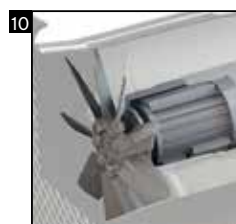
### PRESSURE SWITCH (WATER DETECTION)

The switch detects the delivered water pressure. **This in order** to prevent the pump from dry running.



### STAINLESS STEEL CABINET

Stainless steel IP66/NEMA4



### 2-SPEED FAN MOTOR

A 2 speed motor in order to reduce the throw and noise levels.



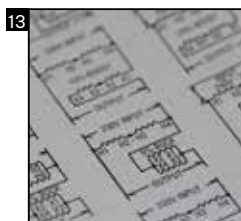
#### AUTO WATERDRAIN VALVE

Auto drain kit to empty the pump automatically. The filter is drained by a manual valve.



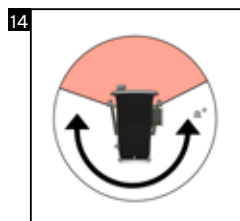
#### MANUAL WATERDRAIN VALVE

A manual ball valve kit in order to drain the pump and filter.



#### PHASE CONTROL

This device protects the machine against lot phase, non-symetric voltages and wrong field rotation.



#### ANGLE SENSOR

With the angle sensor the machine can turn in a predefined angle.



#### WINTER PACKAGE

A package which heats the pump, nozzling and filter. Not for HP models.



#### CENTRAL NOZZLE / FIREFIGHTING

For more directed water droplets.



#### DOSAGE PACKAGE

An in-line dosage circuit in order to mix odor suppressant or water surfactant products.



#### SALTWATER PACKAGE

Stainless steel connector set for the complete machine. This is used for aggressive liquids.



#### ADDITIONAL EPOXY COATING

An extra epoxy coating for the structural components in order to protect the machine against aggressive liquids.



#### WALLMOUNT FOR CANNONS

Wallmounts in order to fix a Spraystream to a wall (up to Spraystream S15.0)

## Self-supporting machines

The Spraystream range is providing self-supporting solutions which provides truly portable use and can operate up to 8 hours without the need for separate water or external power supply. These systems are containing a watertank, pump installation, Spraystream machine and generator mounted on a skid or trailer. The self-supporting unit can be road-legal.



TYPE: SPRAYSTREAM SELF-SUPPORTING  
S2.2 | SS25i

THROW:	30 M
MAX. PRESS. :	20 BAR
WATERFLOW*:	5 - 15 LPM
TANK:	2500 L
GENERATOR:	TBC



TYPE: SPRAYSTREAM SELF-SUPPORTING  
S4.0 | SS35i

THROW:	35 M
MAX. PRESS. :	20 BAR
WATERFLOW*:	5 - 20 LPM
TANK:	1000 - 2000 L
GENERATOR:	TBC



**TYPE: SPRAYSTREAM SELF-SUPPORTING TRAILER**

THROW:	50-70 M
MAX. PRESS. :	20 BAR or 80 BAR
WATERFLOW*:	10 - 60 LPM
TANK:	1000 - 2000 L
GENERATOR:	TBC



**TYPE: SPRAYSTREAM SELF-SUPPORTING-SLEDGE**

THROW:	50-100 M
MAX. PRESS. :	20 BAR
WATERFLOW*:	45 - 90 LPM
TANK:	(VARIABLE)
GENERATOR:	TBC



**TYPE: SPRAYSTREAM SELF-SUPPORTING**

THROW:	50-100 M
MAX. PRESS. :	20 BAR
WATERFLOW*:	45 - 90 LPM
TANK:	12000 L
GENERATOR:	TBC

## Kit machines

We provide kits in order to facilitate the installation of semi tailor made solutions.



### TYPE: SPRAYSTREAM WALLMOUNT VERSION

THROW:	25-70 M
MAX. PRESS. :	20-80 BAR
WATERFLOW*:	6-60 LPM

This kit includes a wall mounted version of a Spraystream cannon with a separated electrical cabinet, filter and pump. The technical unit can be installed up to 100m away from the cannon. This gives you the possibility to integrate the Spraystream technical unit into your heated and closed building. The electrical cabinet can be controlled by the existing factory supervision control system.



### TYPE: SPRAYSTREAM VERTICAL TANK

THROW:	50 - 80 M
MAX. PRESS. :	20 BAR
WATERFLOW*:	45 LPM
TANK:	3000L

### TYPE: SPRAYSTREAM TOWER

THROW:	45-100 M
MAX. PRESS. :	20 BAR
WATERFLOW*:	45 - 90 LPM
HEIGHT:	3M / 6M

This kit includes a tower version of a Spraystream cannon with an electrical cabinet, filter and pump at the base of the tower. The tower needs to be fixed onto a concrete base.



\*WATERFLOW: CAN BE MODIFIED DEPENDING ON THE APPLICATION

# Stockpiles



TYPE: STOCKPILES

THROW: 50-80 M  
MAX. PRESS. : 15 BAR  
WATERFLOW\*: UPON DEMAND

# Leachate Evaporation



TYPE: LEACHATE

THROW: 50-80 M  
MAX. PRESS. : 15 BAR  
WATERFLOW\*: UPON DEMAND

Problem with water accumulation? Leachate, tailings, pond level? Increase evaporation with our evaporation set-up. The SprayStream leachate cannon accelerates the evaporation from the water and is reducing the overall volume of the leachate storage.

# Modular systems for shredders

The use of crushers and shredders emits high levels of very fine dust. That's why we developed our innovative JetZone system to control dust at the source. We insert micro-droplets in the machine's breaker chamber under high pressure, ensuring that the mist controls the dust in the machine itself. The dust can be eliminated permanently by injecting an additive, even when the water evaporates.

**SPRAY > STREAM**  
DUST SUPPRESSION TECHNOLOGY

**JET-ZONE**  
dust suppression for shredders

## Dust suppression at the source for shredders

Inject micro-droplets into your breaker housing under high pressure to reduce dust by a spectacular amount over your entire breaker line. Timber, rock, metal – BIOX can help.



## Benefits

- Excellent dust suppression
- Low water consumption
- Connect and go
- Compact mobile unit
- Maintenance-free injectors
- Suitable for pressure washing
- Everything needed for installation



## Technical specifications

- High pressure water pump assembly
- Intelligent feed/self-priming pump
- 1" BSP hose connector
- 150 micron industrial water filter
- Dry-run protection system
- Maximum working pressure 130 bar
- Flow control from 3 to 19 L/min
- 3x400V + G - 5-pin 16A connector
- Phase control



1



2



## Injectors on shredder

1. Two misting injectors in breaker housing. The injectors can withstand the harsh shredder environment and will not become plugged.
2. Optional injector on feed hopper.



# Fixed nozzle systems and customisation

Not every dust or odor problem can be solved in the most efficient way with standard machines. That is why we also provide customized systems. This can range from minor adjustments to standard machines, or completely customised installations. This way we can perfectly meet the customer's needs and budget.

**SPRAY > STREAM**  
DUST SUPPRESSION TECHNOLOGY

### Fixed line systems

Our team of engineers have the knowledge and experience to develop custom-designed fogging systems. This is applicable for dust control, odour control, cooling and all other projects where misting is applicable. Our assembly and maintenance teams ensure perfect installation and after sales service over the whole world through our dealer network.



TYPE: Nozzle line

With custom made solutions we can supply the pump and controller to meet your wither simple, or multi-zone requirements. Fixed nozzles can be installed quickly and easily and create an efficient spray pattern. The quantity and type of nebulizers are adapted to the need in order to obtain a perfect integration without your products becoming soaking wet.



TYPE: Injection points

Dust can be controlled by separate misting points on fixed installations and closed processing lines. A wide variety of misting nozzles and high pressure pumps systems makes it easy to adjust the flow rate. The atomizing points can be incorporated into the existing housing, while the nozzle remains easily accessible for inspection.



TYPE: Ring solution

An atomizing ring with high pressure nozzles can be used at transfer or tipoff points. The nozzle ring is supplied by mains water supply and high pressure fogging pump. The dusty material falls through a mist curtain which ensures that the dust is under control. The rings are made to accommodate the belt with in order to obtain perfect dust control.



### Grapple solutions

During shifting raw material, there is often dust. The grapple atomization is a great solution because water-droplets are sprayed close to the dust source. Therefore less water and energy is required. Depending on the design of the crane, the control can be automated in order to relieve the operator by operating the dust suppression system.



# Technical cabinet



Thanks to our many years of experience and technical knowledge, we can offer a tailor-made solution for every customer. This is accompanied by the **pumping installation** a unit that meets the highest requirements. This varies from basic solutions to high-end systems, with integration into the current systems through internal programming and in close communication with the customer.

## TYPE: Pump cabinet

We have our own designed cabinet for smaller projects. This cabinet has a modular construction, so that it can be used for various projects. The cabinet can be used both in- and outdoor. The solution is plug-and-play on site, and only needs to be supplied with water and power.



## TYPE: Container solutions

For larger projects, a 8' or 10' container is provided for the technical unit. The necessary pumps, filters, valves and control box are built in here. The plug-and-play principle is also applied here. The containers are always furnished according to the requirements and in close contact with the customer.



