

Fixed Automated Spray Technology – FAST



Towards the automation of winter service

Boschung's Fixed Automated Spray Technology (FAST) is a core element of large-scale "Surface Condition Management" because of its high degree of automation and extremely short reaction time.

Engineered for high risk, high traffic surfaces and accident traps, the Boschung FAST system offers the comfort of automation while guaranteeing a job done with precision for maximum safety and efficiency.



Built for your requirements

Whether built directly into the pavement or installed on the side, the FAST system is adjusted to the size of the surface to cover in length and in spraying width. From the mini installation of a few meters to the longest systems of a few kilometers, our specialists adapt each installation to the specific needs of your project.

Safe and effective in the most difficult places

Thanks to Boschung's technology, the surface condition is detected precisely and the spraying is triggered promptly. This accuracy allows the FAST system to use the right amount of thawing agents to keep the surface safe at all times. Installing a FAST system in hard-to-reach areas or areas with specific conditions, such as at the exit of a tunnel, on a steep ramp or on a bridge, allows you to ensure the safety of a high-risk traffic area while using a thawing agents adapted to the situation.

To prevent snow from sticking to the ground and getting compacted by heavy vehicles, applying a thawing agent at the beginning of snowfall. The FAST system facilitates early action in the most difficult areas in the event of snowfall and keeps tires gripped to the surface, while making the snow easily removable by snow plows and giving you an extended timeframe to start snow removal operations.



Best for your finances and the environment

By facilitating action in the most difficult places, Boschung's fixed automated spray technology allows significant financial savings by limiting the need for vehicles to be deployed, ultimately reducing CO₂ emissions.

In addition, spraying the appropriate quantity of thawing agents limits costs and environmental impact, while preserving structures, particularly civil engineering structures.



Automatically eliminate risks with proven efficacy

Because seconds are crucial for safety, eliminate risks of ice formation on your high exposure and high traffic surfaces with the proven FAST, Fixed Automated Spray Technology, system.

An entirely automatic liquid de-icing system triggered directly by the Boschung active sensor technology. In just a few seconds, the de-icing agent is spread out, covering the surface just before ice formation. Safety and fluidity are assured in the most sustainable way.

Challenges

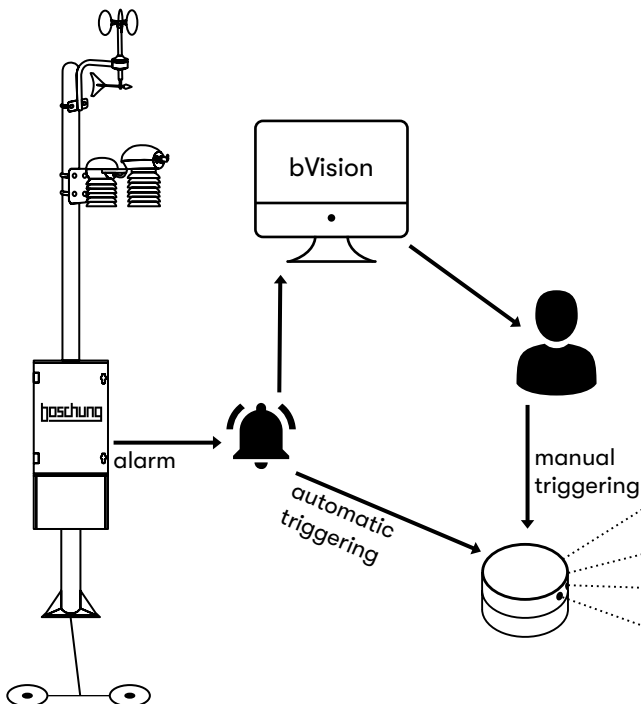
The sudden outbreak of dangers on the pavement represents a major challenge for winter service management, particularly when the distance between the operation centers and the site of the intervention is significant.

In such circumstances, access to the road sections to be treated is often complicated due to traffic jams and traffic difficulties due to weather conditions. In addition, a long reaction time can make the situation worse.



Solution provided by Boschung

Boschung's FAST system - Fixed Automated Spray Technology - is an instrumental component of winter service automation. The dangerous conditions detected by the ice early warning station are transmitted to the services concerned via the bVision platform. In parallel, the stations directly trigger the spraying equipment.

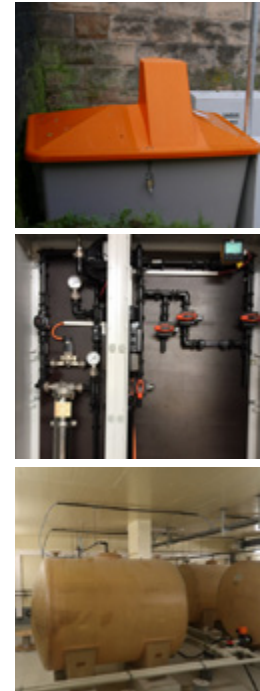


Equipments

Detection station



Pumping station



Spray systems

Spray head



Spray disk



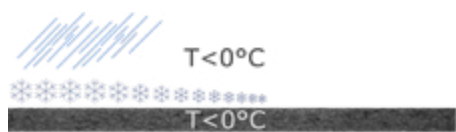
Micro-FAST



Application cases

Drawbacks without the FAST system

Black Ice



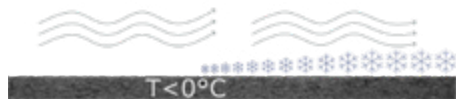
Black ice forms when it rains if the road surface temperature is below 0°C or if the rain falling has been cooled down.

Ice



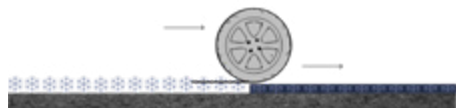
Ice forms when the water overlying wet sections freezes due to a drop in temperature.

Frost



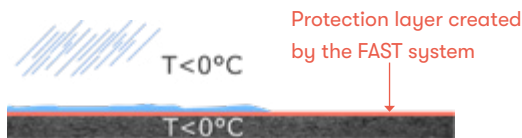
Frost is formed when tiny particles of ice come to cover the road.

Snow



The snowfall is compressed by the tires and forms a slippery surface.

Advantages with the FAST system



De-icing agent is automatically sprayed as soon as rainfall that could result in black ice formation is detected.



The wet sections are preventively primed with a minimum amount of de-icing agent just before the freezing point is reached.



Spraying occurs as soon as frost is detected.



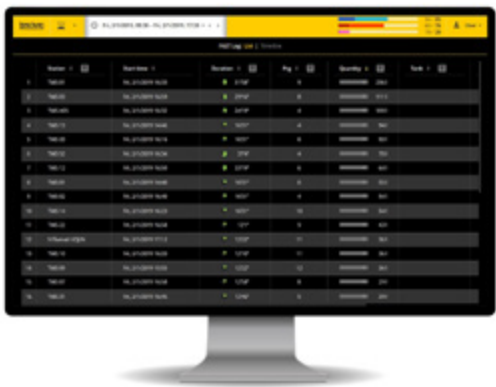
As soon as the snow begins to fall, the pavement is covered with a small amount of de-icing agent to prevent the ice from sticking to the pavement and optimize snow removal.



Secure system control with bVision

Thanks to the bVision platform, the management and control of your FAST system have never been easier.

bVision is a web-based platform that englobe several tools and software for the analysis and production of road and runway operation reports in both winter and summer. Response vehicle's



data, ice early warning system data and generated alarms are collected by the bVision platform.

The user-friendly and easy-to-use interface supports you in configuring your system and making decisions to launch a spray. In addition, the spraying log provides you with quick access to the complete history of your system.



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