

THE FUTURE IS NOW!

# THE SELF-DRIVING WM MAMMOTH AUTOPILOT

Outstanding automated assistance brought to you by WM ice technics, masters of innovation.

From now on, visitors to the ice stadium will be rubbing their eyes in wonderment as they watch the ice resurfacers making their way round the rink - and see an empty driver's seat. Yes, it's possible - with WM ice technics autopilot!

#### Automated assistance

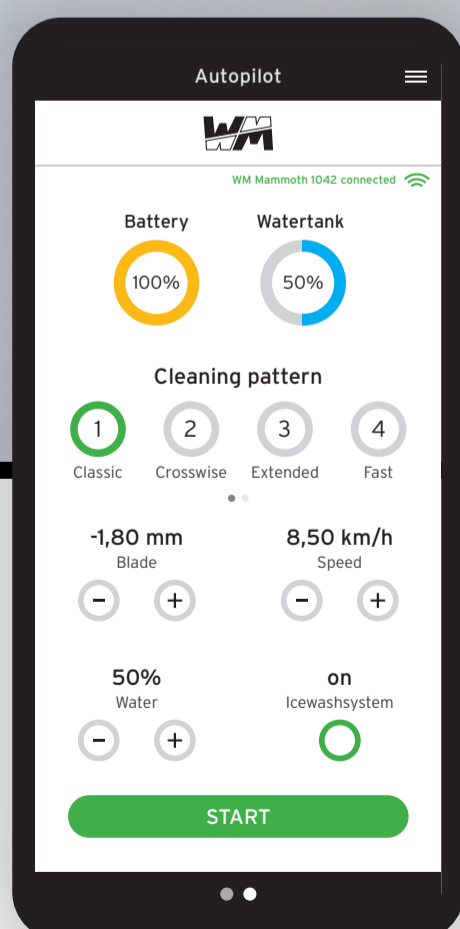
WM ice technics took their first step towards the future with their innovative, one-press, integrated automatic mode: At just one press of the button, all operations are activated in a predefined order. WM ice technics have now taken the next leap forward and, with the WM Mammoth Autopilot,

automation in the work place has reached a new peak. The self-driving vehicle is capable of completely resurfacing the ice rink without a driver, proving itself to be of invaluable assistance both to the stadium managers and the resurfacers operators: While the Mammoth is resurfacing the ice, the operator has time to get on with other things.

The autopilot mode is ideal for the last cleaning of the day and for interim cleans. In addition to the WM Mammoth, autopilot is also available as an optional for the WM evo<sup>2</sup> and the WM Shira.



# NEWS



## HOW DOES IT WORK?

WM's autopilot vehicles are fitted with a positioning system: Sensors are mounted to the vehicle and in the ice stadium. By using this information, together with that taken from further sensors within the vehicle, a powerful computing unit in the engine compartment calculates the immense amount of data required for autopilot driving.

Info and Technology  
[www.wm-on-ice.com](http://www.wm-on-ice.com)



## AN ARRAY OF DRIVE CYCLES TO CHOOSE FROM

The positioning system allows the vehicle to cover the whole ice rink on a predefined route and carry out resurfacing independently. WM Mammoth Autopilot is controlled by means of a **mobile phone app**: A variety of cleaning configurations are available to choose from, including non-standard drive cycles. Resurfacing times **can be calculated with pinpoint precision**. With the WM Mammoth, ice stadium managers and events' organisers have the certainty of adhering to scheduled ice resurfacing times during competitions.

ONE OF A KIND

## SAFETY COMES FIRST

A self-driving vehicle. And what happens if it goes out of control? Naturally, even though the risks are limited in an ice stadium compared to the dangers posed by a public street, this is an unavoidable worry.

WM ice technics have installed the most exacting of safety measures. An additional 5-level safety system allows for the vehicle to be stopped at any time in the event of impending danger. In case of emergency, there are a number of emergency buttons on the outside of the vehicle.

**suva**  
CERTIFICATION

Type-tested  
vehicle

> With the self-driving  
WM Mammoth Autopilot,  
automation in the work place  
has reached a new peak.



## APP-CONTROLLED

The self-driving WM ice resurfacing vehicles with autopilot are easily controlled by means of a mobile phone app. When paired with the vehicle you wish to run on autopilot, the **app will display** the battery status and water levels of the vehicle and allow you to **set** all the most important parameters such as blade depth, water application and driving speed.

These settings can be changed and fine-tuned at any time, even during resurfacing. The app also displays a **variety of cleaning patterns**, from a quick clean of the ice right through to classic resurfacing. Simply choose the configuration you want, set Autopilot in motion and off it goes! The vehicle will now begin to resurface the ice, and the time required for job completion is shown on the display.



< With one press of a button, the  
integrated autopilot mode activates all  
work operations in a predefined order.

THE FUTURE IS NOW!

## „AUTOMATION AND ASSISTANCE SYSTEMS ARE THE FUTURE.“

### Herr Kofler, is there no end to automation, not even in ice rinks?

No, we're right at the very beginning of the process! Automation, like a number of assistance systems, is becoming increasingly important in our sector. A few years ago already, WM ice technics installed an automatic mode in some of our vehicles to allow the operator to activate all work operations at the press of a button. In the Mammoth Autopilot, we have simply taken assistance in the workplace to the next level.

### How complicated is it to set up the WM Mammoth Autopilot?

Setting the vehicle and its route to the rink is not complicated in the least. The system is installed in your arena by trained technicians. It's not a big job at all!

### WM ice technics always come up with incredible technological innovations. Is there a greater desire for progress in the mountains of South Tyrol than there is anywhere else?

That's probably what our location brings to the table. Logistically we are at a disadvantage in our mountain region, and we are not a low-wage area either. Furthermore, our framework conditions are entirely unsuitable for series manufacturing of inexpensive, mass-produced goods.

However, we have one enormous advantage in South Tyrol: Well-trained, well-qualified experts! This allows us to produce high-quality products and develop them continuously. Innovation is not a necessary evil here; we develop our new technological solutions out of a passion for doing so. And at the end of the day, our customers reap the benefits.



## Markus Kofler

TECHNICAL DIRECTOR AT WM ICE TECHNICS  
AND CO-DEVELOPER OF THE  
WM MAMMOTH AUTOPILOT

While working as an intern, Markus wanted to gain experience in the mechanical engineering sector in addition to his training as an electrical engineer. He came to work for the company in 2007, after completing his training: Initially, Markus carried out quality control checks, and today he works in the R&D department, programming the ice resurfacing machines and advising customers.

We joined him for a chat.

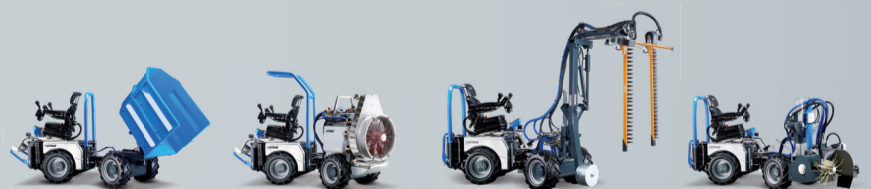


 **VITRAC**  
A REVOLUTION IN SLOPE-TOOL CARRIER.

## WE DON'T JUST RUN ON ICE!

VITRAC is a multi-purpose tool carrier which has been developed specifically for vineyards in steep locations. The highly-maneuvrable vehicle carries even the most complex of implements such as sprayers, trimmers and flail mowers. VITRAC features an outstandingly grip, stability on sloping terrain and user friendliness.

VITRAC is a product from WM Agri Technics, developed and manufactured in our company. Find out more at [www.vitrac.it](http://www.vitrac.it)



# EQUIPPED FOR ALL ICE RINKS



## WM PINGUINO

Small in size, and ideal for events and mobile ice rinks - for ice rinks up to 800 m<sup>2</sup>



WM Pinguino  
Dreams on ice



## WM COMPACT

The compact model for small ice rinks – for ice rinks up to 1,200 m<sup>2</sup>



WM Compact



## WM SHIRA

Powerful drive with electric motors – for ice rinks up to 1,800 m<sup>2</sup>



WM Shira  
Iceforum Latsch



## WM MAMMOTH

The efficient stadium resurfacers – for ice rinks up to 1,800 m<sup>2</sup>



WM Mammoth  
Arena Ritten



## WM EVO<sup>2</sup>

The high-performance model for ice rinks and ice stadiums – for ice rinks over 4,200 m<sup>2</sup>



WM evo<sup>2</sup>  
Max Aicher Arena

**WM ICE TECHNICS PROVIDE YOU WITH THE IDEAL RESURFACING MACHINE FOR EVERY REQUIREMENT AND EVERY ICE RINK.**

We will be happy to advise you on which vehicle is best suited to your needs!

Mobil / Event

Pro / Heavy



Compact



evo<sup>2</sup>



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