

Nedap and Spica provide secure vehicle access control and an easy registration process at Iskra Mehanizmi

The Slovenian company Iskra Mehanizmi delivers solutions in the fields of mechatronics, fine mechanics, electromechanics and electronics to customers worldwide. This company values the security and user experience of employees and visitors. Due to problems with the current Time and Attendance and Access Control systems, Iskra Mehanizmi was looking for new solutions. Nedap's long-range UHF RFID solutions and ANPR solutions were selected and integrated with Spica's solutions to provide secure vehicle access control for employees and visitors.



Iskra Mehanizmi

Iskra Mehanizmi is a Slovenian company with sixty years of experience in the fields of precision mechanics, electromechanics and electronics. The company, which is entirely export-oriented, boasts its own development and marketing of demanding systems, products and technologies. The three largest export markets are the Netherlands, Germany and Austria. The year 2021 will be remembered especially after the relocation of the company's headquarters to a strategic location near the national airport Brnik. The relocation is of historical importance for the company, as it enables them to expand their business in the coming years. Also in this year, Iskra Mehanizmi expanded its access control system (with identical equipment) to a new production facility in BiH (Gradiška).

Looking for an user-friendly solution for every visit

At Iskra Mehanizmi, a lot of attention is paid to optimizing processes that must be friendly to employees and visitors. Problems with the existing Time and Attendance (TA) system and Access Control (AC) system and the construction of a new facility in 2021 created new needs. They wanted to thoroughly regulate the area of the company's visit, in a way that will make work easier for all employees and provide visitors with an excellent user experience.

Nedap's long-range UHF RFID for vehicle access control

In accordance with the requirements for thorough traceability, Iskra Mehanizmi selected Nedap and Spica for a new Time and Attendance and Access Control system. Nedap's [uPASS Target UHF readers](#) were chosen for access control for employees to the car park. Nedap's uPASS Target is a high-end UHF RFID reader for long-range vehicle identification. In combination with Nedap's [UHF Windshield](#)

[Tags](#), vehicles are identified up to 10 meters (33 feet). By providing employee vehicles with a UHF Windshield Tag that contains a unique identification number, they can gain fast and secure access to the car park.

Iskra Mehanizmi also chose Nedap's [UHF Combi Cards](#) for employees who needs access to the car park and building(s). The UHF Combi Card is featured with long-range UHF and proximity or smartcard technology. It ensures the use of one single card for both vehicle and building access applications. Depending on the rights and wishes, these solutions are suitable for employees to give them secured and easy access to the areas they should be.

"Špica successfully integrated its access control with Nedap's truck identification system. The solution presents great value to Iskra Mehanizmi as it combines security and agility in areas that are traditionally hard to combine. Špica is proud of being part of such an advanced project with two partners that are both experts in their field." **Tone Stanovnik, CEO and owner at Špica International d.o.o.**

All-in-one license plate camera: ANPR Lumo

For vehicles that need to be granted access temporarily (employees) or incidentally (visitors), Nedap's [ANPR Lumo camera](#) was selected as the perfect solution. The ANPR Lumo is an all-in-one license plate camera that can identify vehicles based on their license plate. With a range of action of 2 to 10 meters, the advanced camera ensures a smooth recognition of vehicles to the car park. Deep learning algorithms enable a high accuracy.

Besides identification of vehicles to the car park, ANPR Lumo was also selected for truck announcement (delivery). The truck announcement system is closely integrated with

Špica's solution for access control at the location of the company that manages the locks and the camera system. They recognize the registration number of the vehicle and check whether the data on the announced transport match, and the doorman additionally checks the data of the driver when he first visits the company. Carriers can select a time window and (at the time of arrival) a free loading / unloading point in the application for announcing transport according to the calendar. The system also transmits the data to the warehouse, where digital screens are installed, which show the warehouse staff the announced transports.

Secure access control and registration process for forklifts

Not only employees, but also logistics and transport service providers must register for access to Iskra Mehanizmi. Namely, each forklift must report the planned arrival and departure, driver and means of transport before entering the company's location. Nedap's uPASS Reach readers are selected for automatic vehicle identification at fast lifting sectional doors. The forklifts are equipped with a vehicle identification tag from Nedap, called: [UHF Heavy Duty Tag](#). This tag features a rugged design for long term outdoor use in industrial environments. The UHF Heavy Duty Tag is a cost effective solution for installations that require the tag to be mounted onto the exterior of the vehicle. Based on passive UHF technology (± 900 MHz), the UHF Heavy Duty Tag is identified up to 5 meters (16 feet) with [uPASS Reach](#).

"By providing our employees with a RFID/UHF technology we have given them the possibility to enter the car park and use different self-services within the company, like fitness, coffee, lunch, etc. We are also developing integration of UHF cards with electric charging stations for the future, so our employees and guests will be able to use it as a self-service. In addition, the state of the art ANPR Lumo camera was selected for truck identification and announcement. The plate recognition and integration to Špica's access control system backed with learning algorithm proven to be a cost effective solution which substantially increased the efficiency of our logistics." **Slavko Ovčina, IT director, Iskra Mehanizmi**



Benefits at a glance

- Reliable solution for TA and AC using modern technology: ANPR, BLE, UHF
- Greater security
- Better control over visitors
- Better control over the arrival of trucks / forklifts
- Better data control in real time
- Automated processes, less administration
- Provided support through a maintenance contract