

## RELIABLE TRACEABILITY UNDER EXTREME ENVIRONMENTAL CONDITIONS THANKS TO RFID

**SSAB Swedish Steel AB, or simply SSAB is a Swedish company, formed in 1978 and specialised in processing raw material to steel.**

**SSAB Merox AB is a wholly-owned subsidiary of SSAB EMEA AB. Merox's function is to optimise handling of SSAB EMEAS's byproducts, scrap and waste.**

When SSAB EMEA manufacture steel products, approx 3,5 million tons per year, about 1,5 million tons of by-products are created. Merox develops and utilises these products, which have diverse and often quite unique characteristics. Merox has been working for more than 30 years with the development and production of its unique products. The development and production is integrated with SSAB's pro-

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## CONTENTS:

- Page 1 Thanks to RFID
  - Page 3 RFID as a Mobile Service
  - Page 4 The Golden Tag Award 2010
  - Page 5 RFID for better health in Denmark
  - Page 6 RFID for Art Collections
  - Page 8 Tailored RFID chips
  - Page 11 NFCTAGS.COM
  - Page 12 RFID for car parking in Turkey
  - Page 13 Total environment control with RFID
  - Page 15 The RFID NORDIC Scholarship 2011
  - Page 16 UHF GEN 2 RFID Tags
  - Page 17 Control System at Italian Court House
  - Page 18 SAS launches smart Pass across Scandinavia
  - Page 19 The Chapman University Installation
  - Page 20 RFID to track Government Assets
  - Page 21 Become a member of RFID NORDIC for 700€/year
- Send your contacts to: [ove.canemyr@trendsetter.se](mailto:ove.canemyr@trendsetter.se)
- Page 22 Members of RFID NORDIC



duction of high quality steel. Merox's company motto can be expressed in the following sentence:  
Recently Merox needed to upgrade

### WE KNOW EXACTLY WHAT GOES INTO OUR PRODUCTION - AND WHAT COMES OUT.

an existing weighbridgesystem, since payloads have increased over the years. After the upgrade, the weighbridge now can handle trucks with a total weight of 120 tons.

The RFID system is based on UHF Gen2 tags in the form of a credit card. Each type of material to be handled by the truck has its unique ID-card. Each driver has a booklet with Alu-covers where all different cards are kept. This guarantees that only the card connected to the actual payload will be read by the system.

The stationary reader is a Scirocco type 610 with a built-in heater, to guarantee safe readings down to -40 °C.

"There are two main reasons why we selected the Scirocco reader" say Bob and Roland. "First, the system has an outstanding performance, a multitude of options and is easy to get up and running. Secondly, we had a very good support from the

whole Scirocco crew."

The wide span in length and height of the various trucks and haulers, made it necessary to utilise two separate antennas in order to cover all possible positions where the ID-card could be during the identification process.

In the picture above we can see how the driver just holds the ID-card close to the side window. As soon as the weighbridge has caught the weight, the computer system fetches the RFIDcode of the ID-card from a pre-defined system port. All data is sent via Ethernet to the office computer, where the operator now has full control over the entire process.

As soon as the driver sees the red stoplight at the end of the weighbridge change to green, he is cleared to drive off to complete his mission. Thanks to the RFID-based system, Merox now can be sure that their motto **We know exactly what goes into our production - and what comes out** is fulfilled, with no exception.

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