



Press Release

RELOC and CAEN RFID collaborated to automate Acciai Vender warehouse

Parma- Viareggio, Italy April 16th 2008 – **RELOC, a system integrator company**, and **CAEN RFID**, leading provider of electronic instrumentation for radio frequency identification, implemented a system for **steel strips and plates** identification by using RFID UHF technology.

The aim of the project is the use of RFID technology for the simultaneous identification and location of metal products handled inside the Acciai Vender warehouse, a commercial and service centre for stainless steel. The identification and location of each element during the working process represents a strategic opportunity to optimize production processes and increase safety levels inside each company. The testing environment represents both a great opportunity and an hard challenge due to the massive presence of metal causing the continuous reflection of the electromagnetic waves and possible malfunctioning of some tags placed in direct contact with the steel plates. To achieve the first goal, *identification*, the RFID flexible labels, placed on each product handled inside the project area, have been carefully selected and engineered. The identification of steel plates and plate packages is achieved through an RFID interrogation system, based on the integration of CAEN RFID A941 reader and PC embedded, installed on forklifts for the transport of raw materials and finished products.

The product identification can be performed manually (such as during periodic inventory), through portable readers, allowing an important operation time reduction and improving its reliability. The heaviness of the products stocked inside Acciai Vender warehouse requires the use of forklifts or bridge-

cranes in every working phase. This last productive process characteristic is the key to develop a tracing solution for raw materials and products.

The real time tracking of forklifts and bridge-cranes performed by a network of RFID passive devices placed on the floor and warehouse walls allows to have the position of every steel strips and metal plates as well.

The passage through this virtual traffic zones can be monitored using the same RFID devices placed on the forklifts and bridge-cranes. The use of a wireless network allows to build up a central monitoring system able to communicate with the portable devices. This central control is managed with an *ad-hoc* software connected to a dedicated server, able to interact with the company management application system.

“We are satisfied with the application and reliability of devices, hardware installations and software solutions. The pilot project showed how an original solution based on innovative technologies, can improve *the steel logistics*: operation time reduction, a better organization of a dynamic warehouse and the optimization of inventorial procedures represent only some of the tasks achievable with this system”, declared **Enrico Vender**, **Acciai Vender** CEO.

Andrea Ricci, RELOC engineer, declared that “the success of this application comes from the on-site continuous *research and testing of innovative solutions* based on the overlapping of key components of information technology: the top-quality electronics of CAEN RFID devices combined with ad-hoc software solutions represents the best way to stimulate designers imagination and satisfy the real needs of each customer ”

“The application's scenario is probably one of the most difficult for UHF RFID implementation, due to the massive presence of metal. RELOC skills and designing capabilities allowed to overcome any technological restriction and, thanks to our equipment flexibility, to provide a simple and innovative solution for dynamic warehouse logistics management” declared **Giovanni Riganti**, **CAEN RFID** Marketing Manager.

CAEN RFID readers are compliant with European (ETSI EN 300 220 and ETSI EN 302 208) and American (FCC part 15) regulations and support both ISO18000-6B and ISO18000-6C (EPC Class 1 Gen 2) versions. The easy2read© modules can reach 7-8 meters of reading distance, and are a good solution for a large number of applications such as access control and/or UHF gate, desktop solutions or OEM solutions to be integrated in portable devices or printers.

About Acciai Vender :

Acciai Vender S.p.A., which has been working in the non-ferrous metals since the seventies is the most significant Italian Group in the capillary distribution of this sector. During the eighties Acciai Vender has enlarged its commercial horizons towards international markets in which are now present in the most significant strategic areas with service and distribution centres.

Having believed in this alloy and contributed to its diffusion gave them the possibility to define themselves as pioneers of this technological revolution.

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About RELOC designing group:

The RELOC designing division consists of a group of engineers working in the ICT field, skilled in designing and implementing wireless systems addressed to the *location*, *traceability* and *radio identification*. The group has been supported from its beginning by co-funding of the European Community.

RELOC is a *solving partner*, offering to companies its engineering skills and designing creativity, helping them to create customised and flexible solutions for products innovation and production processes optimization. RELOC is committed with the designing and implementation of hardware-software integrated systems for localization, indoor and outdoor distributed wireless networks (radio ad-hoc, ZigBee) and radio frequency identification (RFID) solutions. RELOC provides the customization of software applications according to the customers needs and solutions for the integration with handheld devices (handheld, cell-phones, tablet PC).

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About CAEN RFID:

CAEN RFID is a privately owned Italian company, leading supplier of UHF RFID readers and tags. The company was born recently as a spin-off of CAEN S.p.A. (Costruzioni Apparecchiature Elettroniche Nucleari), a world-leading company with 28 years of experience in electronics for particle and nuclear physics. The longstanding experience acquired with Physics and Aerospace experiments has been the substrate on which the new developments on Radio Frequency systems have begun.

CAEN RFID has become leader in manufacturing and supplying UHF systems. As an active participant of ETSI and EPCGlobal working groups, CAEN RFID is able to provide customers with readers and tags that meet ISO/EPC standards and ETSI/FCC

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