

Building industry has more solid foundations with Datalogic - Datalogic

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Kerakoll is one of the world's leading groups in the building chemicals sector. In 2006, it posted a turnover of 285 million euro, 35% of which was represented by exports. It has 13 operating companies and nine production sites. With the Kerakoll, Biocalce and Kerakoll Design brands, the Group sells more than 2000 production systems, each one specializing in a specific business segment: Kerakoll for modern building and contemporary architecture; Biocalce for community building schemes and historical restoration and finally, the newest brand, Kerakoll Design, for interior design and decoration. Today, Kerakoll is recognized worldwide as the most consummate, reliable partner for construction, planning and interior design, and Kerakoll products are used in the most prestigious construction projects in Italy and abroad.

Kerakoll's requirement

On average, 200 goods vehicles a day leave Kerakoll warehouses loaded with products for the world's building industry. Preparing a shipment involves identifying the products in each client's order, picking these and placing them on the goods vehicle, and then updating the system with information on new stock levels before sending the shipment.

This process used to be done manually, making it slow and often subject to errors. As the number of goods vehicles leaving each day was increased, it became increasingly crucial for Kerakoll to automate its picking operations in order to expedite the process and reduce errors. Kerakoll contacted Uni Sistemi, Datalogic's quality partner, which, taking account of the requirements and specific characteristics of Kerakoll, put together a tailored solution involving a range of Datalogic products. Datalogic was chosen because of the renowned quality of its products and because it is the only company able to provide all of the resources necessary to implement the solution, from photoelectric cells to fixed scanners, and from mobile computers to cordless guns.

The solution: how it works

In the Kerakoll warehouse, the operator drives a forklift truck on which the Rhino™ terminal is installed. This handles all operations, collecting, processing and managing data directly from the truck. The operating system sends Rhino™ the picking list via Wi-Fi radio link. This contains information concerning the products to be picked and their location in the warehouse. The operator reads the instructions on the large high-resolution display, enabling him to see the information in all light conditions: for activities inside or outside the warehouse and when moving between different lighting conditions.

The operator operates the truck by following Rhino™ instructions to pick the products: the solution also uses Datalogic products for this operation. Fixed Datalogic DS6400 scanners are positioned between the arms of the truck, in turn connected to Rhino™, which allows the operator to perform all

of the operations without having to leave the truck. Once it locates the pallet indicated by the terminal, a photoelectric cell activates the DS6400, which scans the barcodes without the operator having to perform additional procedures. With its optical system calibrated for extreme conditions, these scanners work both indoors and outdoors, even in bright sunlight, and thus offer 24-hour operating capability. In addition, the scanners are positioned on the buffer system to avoid stresses due to uneven surfaces. Operating speed does not decrease, but actually improves.

The forklift truck raises the selected pallet and transfers it to the goods vehicle before continuing with loading. Information recorded by the scanners is sent to the operating system, which is updated automatically and generates the necessary labels. The system has been designed to use automatic scanning wherever possible with the DS6400 on the arms of the forklift: if unsuccessful during the picking phase, the scanner makes a second attempt when it releases the pallet onto the goods vehicle.

If the labels are particularly damaged, dirty or poorly positioned and the DS6400 cannot scan them properly, the operator can use the manual Dragon™ scanner to read the information on the pallet once it is on the goods vehicle, before sending this to the operating system.

The solution also involves the use of the Datalogic Viper™ mobile computer for all ground picking and inventory operations.

Advantages of the solution

The context in which the solution is applied is critical: the type of products handled by Kerakoll can generate dust (aggregates, binding agents, other materials). In addition, the operations take place both indoors and outdoors, in all weather conditions, as well as in extreme temperatures, while the surfaces on which the forklift truck moves may be uneven.

Due to their robustness and their tried-and-tested industrial characteristics, the Rhino™ and DS6400 allow the operator to perform all operations optimally, even in these conditions.

Improvements for the business

Using the solution designed by Uni Sistemi with Datalogic products has enabled Kerakoll to expedite the operations performed by forklift trucks, as well as other procedures in general. By automating the loading process, the error rate has been significantly reduced, improving customer service and simplifying the operator's work. The robustness of the products means optimum use of the solution all year round, in any temperatures and weather conditions.

Currently, Kerakoll has more than 100 Datalogic products in operation at its two sites at Rubiera and Sassuolo.