

Eaton Electric GmbH: Global Distribution Centre



*Eaton Electric
GmbH: 12,000
employees in 80
countries*

Part of the Eaton Corporation, which has more than 75,000 employees in over 150 countries, Eaton Electric GmbH and the company's 12,000 employees in 80 countries market electrical switching devices for automation and power engineering.

In order to meet the requirements of customers in line with the market, Eaton Electric GmbH, Bonn, has expanded its distribution centre at Meckenheim and optimized logistics processes. In addition to the German sales offices, national warehouses in, for example, England, France, and Spain are supplied with goods from Eaton's distribution centre, as are end customers throughout the world.

Since 1998, the company has been using PSI software to control their warehouse processes.

Eaton has benefited in a range of ways from the considerable investment in the development of the distribution centre. In addition to a marked improvement in transparency, throughput times have been reduced by more than 50%. Furthermore, more than around 10,000 articles - 75% of which come from the company's own production facilities - are always available for immediate delivery. Each day, more than 5,000 delivery notes are processed. This corresponds to 16,000 picking items.

*Significant im-
provement in
availability and
transparency*

The shipments weigh between 100 and 1,500 kilogrammes.

The automatic high-bay storage area which was installed in 1999 has room for 52,000 containers for C and D parts and around 1,000 Euro pallets for single-article storage. A and B parts are stored in a picking warehouse with a capacity of 20,000 containers. There are a further 1,500 storage positions in a conventional storage area for bulk goods and long items, where a forklift is used.

Project definition and implementation

The Warehouse Management System realized by PSI Logistics was designed and developed in accordance with the specific requirements of Eaton. The WMS works with the superordinate SAP retailing system, a downstream shipping system, and the subordinate Eaton control systems of the entire storage and materials handling technology. The goods receipt and issue orders to be processed are transmitted to the WMS from the SAP system. The WMS is responsible for controlling the flow of goods, managing stock and bin locations, and recording and checking data prior to putaway and shipment. Once orders have been accepted, the system schedules the orders and optimizes picking. A pick-to-light system is used, with an independent server for displaying storage and picking bins. The WMS also communicates with the forklift control system.

Investment for expansion

As a result of changed market requirements, order handling at Eaton has seen considerable changes for the entire range of articles supplied. For example, in 2002 three picking units were added to existing container handling technology. These units are compact control devices that automatically place and remove loading equipment into/from the high-bay and temporary storage areas. An order load which was previously processed in 12.5 hours can now be completed in around 10.5 hours by 15% fewer staff. In 2004, an additional external storage area with around 5,400m² of space was integrated into the system. The introduction of a client system in 2006 enabled the storage and delivery of goods by Micro Innovation. In 2007, the hardware and software technology of the pick-to-light systems was completely reconditioned, resulting in a significant improvement in efficiency. The implementation of a much larger and faster vertical storage system optimised the handling of delivery notes. They can now be promptly conveyed to packing. A paternoster system introduced in the external storage area in 2009 allows Eaton to store and pick goods in an automated and cost-effective manner.

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