




Industrial PCs enable fully automated warehouse logistics

End-of-line logistics solutions for the food and beverage industries

Optimum space utilization in warehouses, careful transport, and fully automatic storage and retrieval of products are among the basic requirements for efficient production practices. Advanced logistics systems based on automatic guided vehicles not only increase productivity and safety, but also contribute to cost reductions. Northern Italy-based Elettric 80, headquartered in Viano, is a global supplier of flexible and efficient end-of-line logistics solutions. The company's products include solutions for palletizing products, as well as management of the entire material flow process, from the production lines right up to truck loading.



The single-pallet AGV has a reach of up to 11 meters and can operate in aisles that are only three meters wide.



Advanced logistics systems based on automatic guided vehicles (AGVs) enable efficient utilization of storage capacities, thereby contributing to cost reductions.

Elettric 80 was founded in 1980 as a software provider for the logistics and transport industries. In its earliest stages, the company specialized in the development of conveying solutions for the food and beverage industries. The company's first big innovation debuted in 1991 with the acquisition of a license that allowed the integration of laser technology in transport vehicles. In 1994, the company launched Freeway, a complete automation solution that includes palletizing robots, stretch wrappers, marking systems, and automatic guided vehicles (AGVs). This solution spans the entire logistics spectrum, providing support for design, complete product tracking, storage, and transport.

"A prerequisite for smooth end-of-line logistics is that all system modules 'speak' the same language. We have achieved this through the development of Freeway," said Vittorio Cavirani, Operations Director at Elettric 80.

The wide range of AGVs from Elettric 80 are ideal for the transportation of raw materials and consumables to and from the production lines, as well as for moving end products from palletizing stations and wrapping systems to the loading bays or the warehouse. The company's product range includes AGVs for transporting up to eight pallets for block or shelf storage, as well as precise, fully-automated truck loading. In order to best cope with harsh industrial environments where products may come in contact with extreme temperatures,

vibrations, dust, and condensation, Elettric 80 uses robust industrial control components in its automatic guided vehicles.

"Our customers expect robust, safe, and reliable products, but also require resource optimization, especially regarding energy consumption. Beckhoff provides us with a technology partner that fully meets these requirements. Through this collaboration, we are able to help customers avoid costly downtime and optimally utilize their available storage space," Cavirani noted.

The control platform used by Elettric 80 in their laser guided vehicles (LGVs) employs either the compact C6920 Industrial PC or a CX5000 series Embedded PC. Cavirani stressed the flexibility offered by the embedded devices: "The CX has a range of interfaces, including Gigabit Ethernet, USB, DVI-D and a direct I/O interface to the Bus Terminals and the EtherCAT Terminals. This enables us to integrate a number of different fieldbus devices in the EtherCAT terminal rack, leveraging master and slave interfaces or communication interfaces for a highly flexible solution."

Further information:

www.elettric80.com

www.beckhoff.it