

From Custom-Made Automation Systems to Factory 4.0

Optimising intralogistics processes as a whole, from raw material entry to the finished product shipment, to maximise factory efficiency over time along the entire supply chain, improve product quality, increase plant safety and reduce waste and errors.

Elettric80 and BEMA, founded in Viano, in the province of Reggio Emilia, Italy, in the 1980s and 1990s, respectively, have achieved this by designing **highly advanced, automated, modular and flexible robotised systems** for medium and large-sized companies operating in the **food, beverage and tissue** sectors and in other areas, such as ceramics and plastics.

Since the early '90s, Elettric80 has invested in the manufacturing and production of **Laser Guided Vehicles (LGVs)** implementing hardware and software technology capable of ensuring **maximum efficiency, flexibility and safety in all automated industrial systems**. The wide range of LGVs means being able to respond to the different material handling needs of each customer, managing packaging materials to be supplied to production lines in addition to finished products.

More recently, Elettric80 has also completed its portfolio of intralogistics solutions by developing two types of **high-density automated warehouses**, namely multi-storey systems with shuttles and satellites free from electrical cables and wiring called Smart Store and a solution with stacker cranes (AS/RS). Last year alone, nine high-density warehouses were sold, on four different continents for customers operating in three different sectors (food, beverage and tissue). The stores are integrated in their respective production processes and are all currently being installed and tested.

During the noughties, BEMA implemented a very innovative, highly performing, high-speed robotised wrapper called the **SILKWORM**.

Thanks to the use of a 1000-mm-high film reel, robotised technology and a non-revolving wrapping head, **SILKWORM guarantees high production rates, product integrity and load stability**.

Moreover, SILKWORM ensures maximum flexibility by being able to wrap pallets of different sizes (Euro, half, quarter) with the same quality and to manage wrapping of individual pallets and then coupling them on the same line in a smaller footprint than traditional solutions.

The SILKWORM solution was designed to reduce reel replacement and operator intervention frequency and to allow automatic reel changes without interrupting the production line.

BEMA also developed **picking and repacking systems** which ensure that customers keep abreast of evolving marketing needs by allowing them to depalletise, mix, repalletise and wrap many products types to make pallets of mixed or repackaged products on different supports from the original ones, such as half or quarter pallets.

In addition to *LGVs*, *AS/RS (Stacker Crane Solutions)* and *Smart Store (Multilevel Solutions)*, *SILKWORM* and the range of picking and repacking systems, **Elettric80 and BEMA** design and manufacture palletising and depalletising robots, pallet control systems, robotised labelling machines and **SMART BOX, a compact, end-of-line solution that cleverly combines palletising, wrapping and labelling functions in a flexible and compact layout**.

The **SM.I.LE80 (Smart Integrated Logistics)** software platform establishes a **direct link between systems and production processes** and ensures the optimal and effective management of all operations inside and outside plants.

By capitalising on the know-how gained over the years by analysing logistics flows and customer storage methods in detail, the two companies have made some of the most innovative and advanced intralogistics optimisation system processes on the market today capable of perfectly integrating in existing systems.

Elettric80 and BEMA offer solutions to plan and control production, storage and shipping activities, with a **significant increase in factory efficiency**, guaranteeing total traceability of handled products, from raw material entry to complete warehouse and shipping management.

To date, **the two companies from Viano** have installed over **2000 robotised systems and 4500 Laser Guided Vehicles** worldwide, for companies of the calibre of *Tetra Pak, Moët & Chandon, Danone Evian, Perrier Nestlé, Purina, Barilla, Roxane Cristaline, Bonduelle, Sodebò, Yves Rocher, La Normandise, Spadel, Spa Monopole, Bayer and Ducros*.

In addition to state-of-the-art technology and high-level expertise, Elettric80 and BEMA guarantee **24/7 remote and on-site service** to customers and support to make sure that they stay 4.0 over time. **Elettric80 and BEMA** have branches in Australia, Brazil, Chile, the United Arab Emirates, France, Great Britain, Mexico, Poland, Russia, Sweden and the United States. The branch in Thailand will be opened by the end of the year.

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