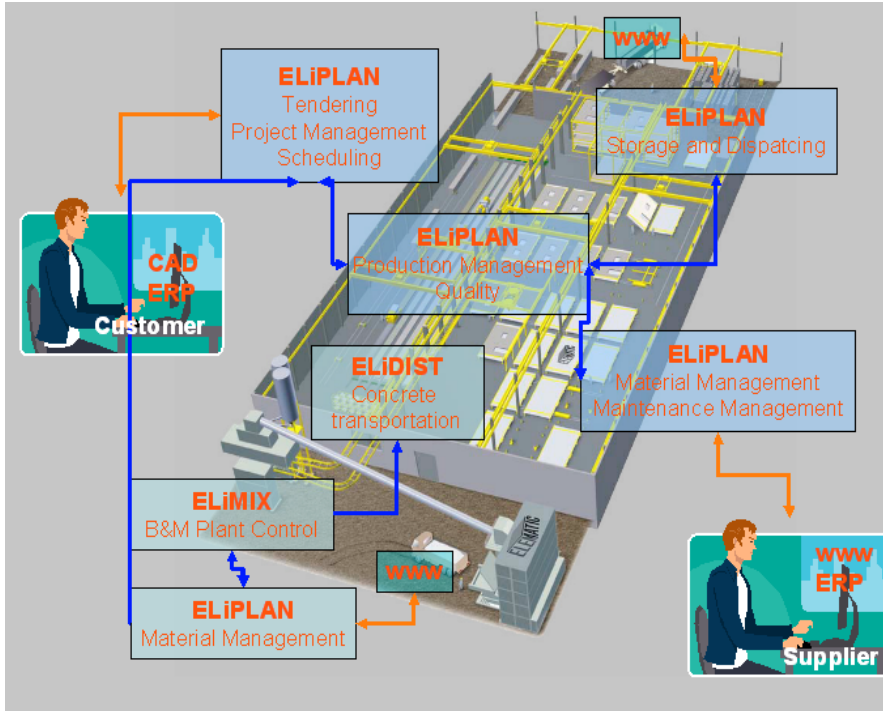




ETAC

ELEMATIC TOTAL AUTOMATION CONCEPT FOR SEAMLESS CONTROL



Precast factory owners can now turn to Elematic for a modular automation system purpose-made for precast factories. With **ETAC**, you can control all phases in the factory production chain, from tendering to dispatching. The modular structure means that you can start off small and acquire one module at a time, expanding the degree of automation as your production and business increase. All modules are built to work both alone and as part of the total system – combine them as best fits your needs.

Precast factory investments have traditionally been scattered among several different equipment and software suppliers, probably because previously there did not exist suppliers big enough to provide precasters with entire product families. Elematic, however, has already long been focusing on providing its customers with complete concept deliveries.

In addition to the right machinery, a successful production environment also requires that the automation systems, production control, and other data systems of a company can be integrated. It is not hard to imagine why this is close to impossible if already the equipment investments are distributed between many suppliers, whose automation systems, if they exist at all, are based on completely different software platforms.

Expand with your needs

In the 80's and 90's, products were standardized at an active pace. This was a prerequisite for the future development. In the beginning of the 90's, Elematic began to determinedly develop a software solution in cooperation with the factories in its own corporate group. Elematic's Manager of Product Development, Mrs. Leena Raukola, explains: "The aim was to create an automation system to meet the particular requirements of precast factories. The system was named ETAC, Elematic Total Automation Concept. ETAC is modular, consisting of numerous independent software components. This makes it especially useful – you can expand the degree of automation according to your needs, one or several modules at a time. No big one-time investment is required, and no over-long system implementations".



ELiPLAN

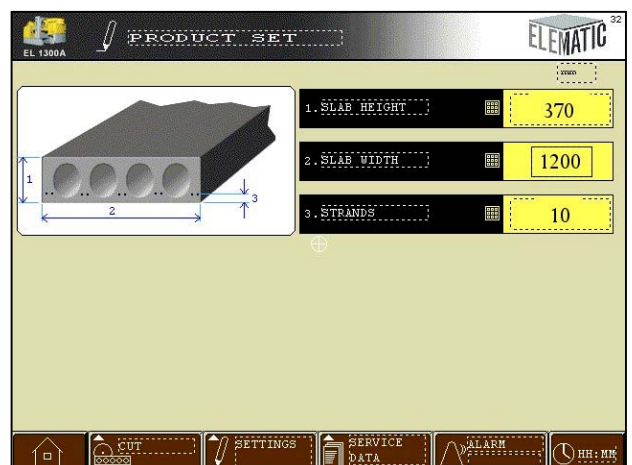
Since the creation of ETAC, Elematic has released many new automation products that are part of the total concept. All of these help customers to utilize their production lines and entire factories more efficiently than before. The most extensive product is ELiPLAN, a production planning system that simultaneously functions as a software umbrella for all the ETAC modules. ELiPLAN can be integrated transparently into the internal production and machinery control systems. Together, these systems provide control for the entire factory production chain, all from the batching and mixing to the storage and dispatching of ready products. Any data only needs to be fed into the system once. Simultaneously, ELiPLAN can integrate with external financial management, purchasing, and design (CAD) systems.

This means that there is no need to manually input the element drawings for tendering, design, and production planning. For example, the product data is moved from product planning to the automatically working production machines.

In ELiPLAN, the product data is converted to material data through the batching and mixing plant and further to the systems of raw material suppliers. The casting machine chain controls the production of concrete and the automatic transportation of concrete to the casting machines. The cutting and further sawing of the product as well as collecting and storage, are also controlled. In the invoicing chain, the dispatching and invoicing data transfer to the company's accounting system is controlled. The last function in these chains of core functions is the collection of production data to the ELiPLAN maintenance module for the planning of preventive maintenance.



In the ELiPOS module, the product data from ELiPLAN is transferred into cutting information for automatic sawing.



The product information display in the saw's control panel shows the dimensions of a single slab.



Less work

The benefits are many, describes Mr. Lassi Järvinen, Technical Director at Elematic: “As a precast factory owner, you can make your work easier. In connection with one-year contracts, for example, you can give your own key customers access to the www-pages where you display current production amounts and products. You can do the same with your own suppliers of materials and wear parts, among others. This also provides you with better possibilities to improve profitability, as you have all the necessary long-term cost information in the system.”

Size does not matter

At its most extensive, ETAC manages several separate factories that each can contain a number of production lines and a variety of products. On the other hand, a hollow-core factory with just a couple of casting lines can already gain from connecting, for example, the ELiPLAN Maintenance Module with the production machinery. This enables better control of preventive maintenance - even if the actual production control is still managed manually. Later, when production and the amount of machinery increase, the automation system can be expanded accordingly. “Automation must not be seen as enslaving, it is quite the opposite. When the market changes, you can adjust your products and production to match the changes and still use the same automation. As the Elematic machinery is designed for automation, you will gain the most from combining these into your entire production chain”, says Mr. Lassi Järvinen.

Future modules compatible

At whatever pace you invest, you can always rely on all future acquisitions, machines and software modules alike, to be compatible with existing ones. The total benefit grows in proportion with the expansion of the automation system. One of the latest elements to the system is continuous user support, which ensures system reliability and minimizes the recovery time in error handling.



Finally, the product is on its way to the customer. The information already fed into ELiPLAN is now available for storage and delivery actions. The tracking of products and quality control are realised with individual bar codes and RFID tags (radio frequency).

For further information, please contact leena.raukola@elematic.com, lassi.jarvinen@elematic.com or teemu.mattila@elematic.com



www.elematic.com

Finland
Elematic Oy Ab
Aiolantie 2
P.O. Box 33
37801 Toijala
Finland
Tel. +358-3-549 511
Fax. +358-3-549 5300
E-mail: info@elematic.com

Germany
Elematic GmbH
Kleebergstrasse 1
63667 Nidda
Germany
Tel. +49-6043-9618 0
Fax. +49-6043-6218
E-mail: info@elematic-gmbh.com

USA
Elematic Inc.
21795 Doral Road
Waukesha, WI 53186
USA
Tel. +1-262-798 9777
Fax. +1-262-798 9776
E-mail: info@elematic-inc.com