Fast And Accurate Plotting

Fast and accurate marking of openings, reservations and other cuts saves a bunch of money in the hollow core slab production process. But not only that - accuracy also saves people at the construction site from spending time struggling with unfitting duct installations. The new automatic Elematic Plotter E9 is both fast and accurate and features a practical touch screen for operation.

The new automatic Plotter E9 makes both speed and accuracy in plotting possible - and comes with a simple touch screen designed to meet the needs of the machine operator. The plotter marks cutting lines, rectangles and circles for openings and reservations as well as identification texts and codes on the cast slab surface. It also marks places for dividers and fittings on an empty bed surface. Both longitudinal and crosswise text printing is possible.

Precision with direct transfer

A new level of plotting accuracy is reached through a direct transfer of slab design details file from the design software (such as Tekla Structures BIM) to the Plotter's FloorMES machine control system. The transfer takes place via a wireless remote link connection without any manual interventions, which removes the risk of human errors from this stage in the process. Further improving the plotting accuracy is the continuous laser positioning along the casting bed. The accuracy of the laser is +/- 1mm.

Fast plotting

Automatic plotting saves time at the factory, too. When there are several different spots to mark, the manual marking time may amount to as high as 2 minutes per slab. This, in turn, means that at the casting rate of 10 000 slabs per year, the total time spent for marking annually is 333 hours.

"I've calculated that investing in an automatic plotting machine pays itself back in less than 20 months. If automation prevents only one mistake in every 500 slabs, it means that you'll save some 26 000 euros (apprx R400,400.00) every year. When automation also cuts the number of work hours spent for the plotting process, your savings will amount to some 36 000 euros (apprx R554,400)", says Jani Eilola, Product Director, Floor technologies at Elematic.

Touch screen operation

Plotter E9 is operated via a simple 15.6" touch screen designed to meet the everyday plotting tasks in precast concrete plants. The screen shows the slabs on beds, and on-bed quick re-planning allows the operator to

- check and edit the data on machine if needed
- remove faulty slab sections
- define a new starting point
- remove geometry

The screen also shows work status such as start time, slab No., tasks and elapsed time, alerts and remaining battery power and ink levels. The touch screen is easy to use; you can zoom and drag and drop items similar to any other smart device.

Safe operation in focus

The plotter is designed with safe operation in mind. It features light sensors on both buffers as well as ultrasonic sensors. The machine stops automatically at any hinders on its way and is equipped with light and sound alarms.

No cables are needed as the plotter is battery-operated. A fully charged battery lasts 16 hours, or one to three days, depending on the beds and machine usage. Automated waterhole driller is available as an option.

Simple maintenance

The plotter offers a bunch of features for easy maintenance of the machine. Those include on-screen quick adjustment and calibration and clog-resistant print head.

The machine is ready for remote troubleshooting and support via a WiFi link (network connection required).