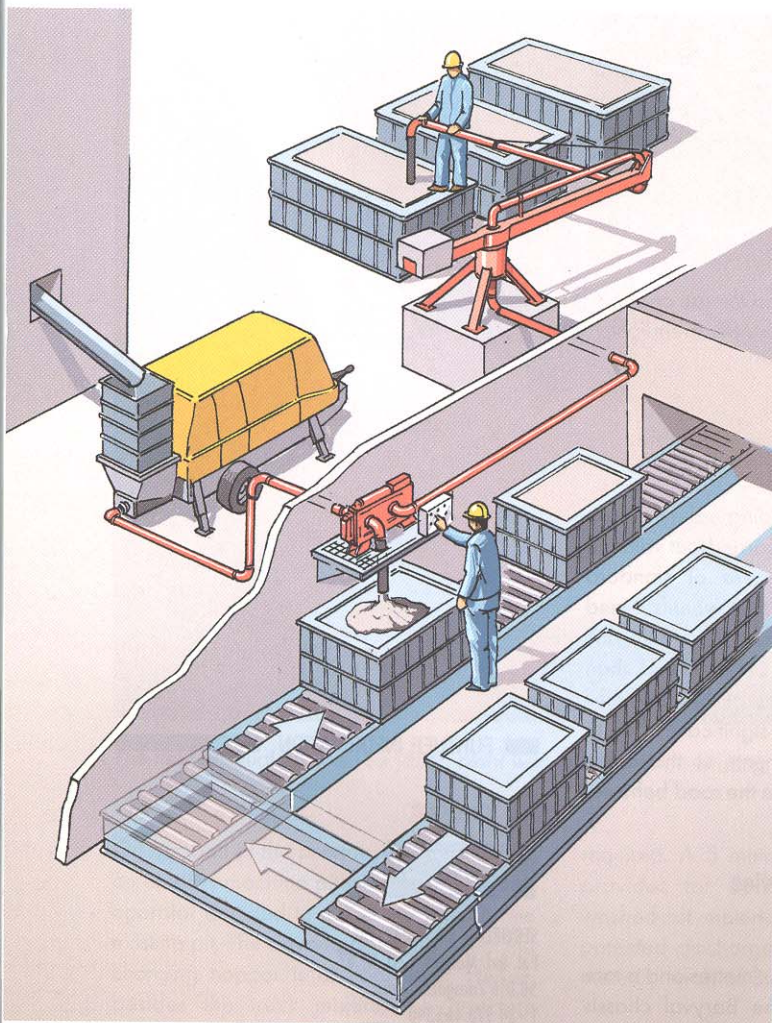


Stationary concrete pump supplies two production lines in precast production facility

Through sophisticated planning and the greatest degree of automated manufacturing possible, a Belgian precast manufacturer was able to rationalise and enlarge his production. A small concrete pump, hydraulic diverter valve and mechanical concrete spreader all play an important role in the process.

Eloy et Fils S.A. has its headquarters in Sprimont, (Belgium), 15 km south east of Liège. The company operates production facilities for making concrete holding tanks as part of its product range diversification in the wastewater treatment sector. These receptacles, which are produced in differing sizes, find their use in the most varied applications, for example: clarifying basins, floating sludge, oil and fat separators, and as water reservoirs.

The company has developed a special concrete recipe - worthy of note - for improving these products. It consists of self-compacting concrete reinforced with steel fibre and a patent is pending for this distinctive composition. Because of this invention, the concrete holding tanks have less weight and are more leak proof. In addition, they are tougher and easier to transport than comparable products from other manufacturers.



Sophisticated and detailed planning went into the plant's concrete flow



The stationary Putzmeister BSA 1005 concrete pump is responsible for conveying concrete by pipeline (DN 100) to both places of production

The entire production process takes place in 3 halls in one location. In hall 1, tanks are manufactured with a holding capacity of 4,500, 6,000 and 7,500 litres. The production line is fully automated and thus can guarantee flawless production. In the hall design, great value was placed on the most ergonomic sequence of operations. The individual steel moulds run on transport rollers. One of Eloy et Fils technicians checks to see that the amount of concrete is exactly right. It varies depending on the tank's size:

- 1,20 m³ for tanks with a holding capacity of 4,500 litres
- 1,35 m³ for tanks with a holding capacity of 6,000 litres
- 1,45 m³ for tanks with a holding capacity of 7,500 litres

In hall II can be found the central concrete mixing plant, the boxes for storing aggregates and a stationary Putzmeister BSA 1005 concrete pump.

The largest tanks (10,000, 15,000 and 20,000 litres) are manufactured in hall III. Their production requires between 2.1 and 4.0 m³ concrete, respectively. To this end, Eloy et Fils have installed a Putzmeister type RV 13 mechanical spreader. The device has a range of 13 m and boasts two horizontal swivelling booms. This means that several forms can be filled in one operating sequence without repositioning. The maximum size for aggregates is 14 mm and steel needle length 50 mm. After concreting has been completed, the cleaning water is collected in a special tank - one from their own product range.



The individual steel moulds for tanks with capacities from 4,500 up to 7,500 litres run on transport rollers



A Putzmeister type RV 13 mechanical spreader was installed for the largest receptacles (10,000 up to 20,000 litres)

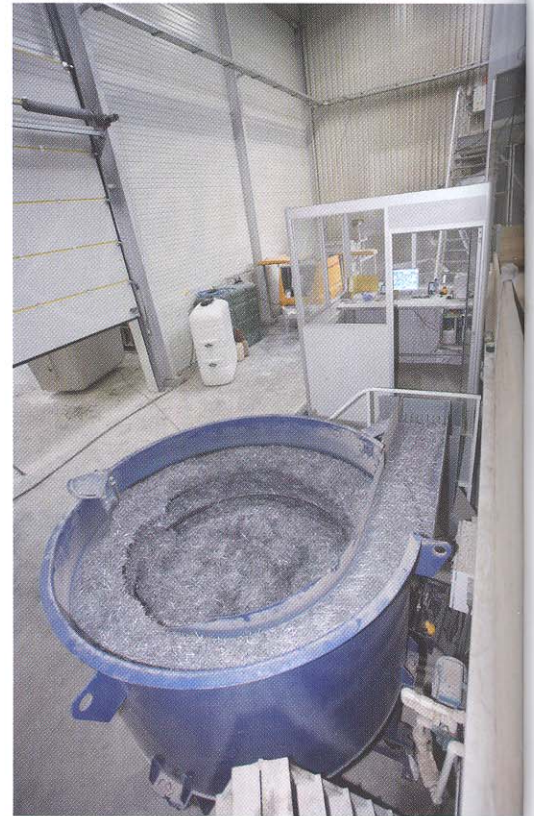
Matchless process flow

The high degree of production line automation is a decisive advantage. The concrete production and the precise steel fibre batching are controlled by computer – only the “on / off” commands are carried out manually.

Sophisticated and detailed planning went into the plant’s concrete flow. Formerly, filling the moulds was done by a truck mixer and the concrete slid down a long chute to the formwork according to the principle of gravity. This job of conveying concrete by

pipeline (DN 100) to both places of production has now been taken over by a small, modern stationary pump. The hopper has been enlarged by an upper section in order to be able to hold a greater amount of concrete in intermediate storage, saving Eloy et Fils the need for external temporary storage. A filling level indicator in the hopper signals to the mixing plant whether it should start or stop supplying concrete. Concrete spreading is carried out via a hydraulically controlled DVH 5/2 diverter valve which guides the concrete into one of the two pipelines. One of these supplies the mechanical spreader in hall III and the

other a short end hose for concreting in hall I. In single-shift operations, approx. 4,600 tank components can be manufactured yearly with this plant. Incidentally, plans have been made for the imminent construction of two further halls.



A fibre batching device controls the addition of 50 mm long steel fibres

FURTHER INFORMATION



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