Schlüsselbauer Technology GmbH & Co KG, 4673 Gaspoltshofen, Austria

Production of Individual Concrete Manhole Components

The French Stradal group has chosen the location at Fontenay sur Loing in the Departement Loiret for its first Perfect manhole component production plant. This plant has the whole product assortment ranging from manhole rings to the takeover of the drain accessory specialist Duverdier Moreau. All products which demand higher geometrical, mechanical and hydraulic requirements are produced here. Because the production of monolithically designed components has long been well established on the French market, Stradal decided they wanted to offer their customers individual product forms thus gaining an advantage in the channel and drain sector. In a national comparison within a very short space of time this plant has efficiently produced exact concrete manhole components using the highest level of automation possible.



The production location at Fontenay sur Loing includes a total area of 7 hectares of which 7.000 m² of built up area can be seen here.

With regard to the concrete production plant that was founded in the 1950's, the main reasons for deciding to implement the Perfect plant here were the staff's years of experience in drain products combined with the geographical positioning of Fontenay sur Loing. Fontenay is situated about 100 Km south of Paris directly on a motorway crossing. The expectations for this production location are clearly obvious. The newly commissioned production plant has the capacity to produce 50 manhole components. An automatic crane serves the curing area and the area designated for the preparation of a day's production of over 50 manholes is also well equipped. It is possible to prepare the steel moulds at various stations simultaneously resulting in effective reactions to changes without affecting production.

The gathering of all assignment data provides the basis not only for the production planning but also for the necessary documentation for the further application of relevant product data. Fundamental for a safe and efficient production tact is the implication of the correct product data. With the help of the Perfect software each individual part is constructed and the exact position and inclination of the in and outlets required for each project are determined. The construction data is then sent to all work stations concerned in the production process. The first step in this process is to assemble the negative channel forms made from various standard elements. At Stradal the assembly of the individual EPS parts is supported by the use of a positioning laser installation whereby it is possible to carry out continuous and immediate checks at all times.

The area for the pouring of the moulds with self compacting concrete is also automated. This concreting unit automatically pours the moulds with the exact amount of concrete necessary to meet the requirements of the channel configuration, manhole diameter, wall strength and building height. During the whole handling of the moulds and the removal of the cured products from the moulds the staff play only an observing



The steel moulds are transported to and from the curing area by means of a robotic crane.



The removal and turning of the cured products is carried out fully automatically.



The production process is complete. The finished product complete with a verification sticker leaves the production building.



A steel mould complete with a negative channel piece is ready to be poured with self compacting concrete (SVB).

role. Having run through the concreting station the automatic crane Transexact transports the filled moulds to the designated curing area. Once cured the crane then transports the moulds to the removal and turning unit. Finally the cured products are placed on a conveyor belt and transported out of the production building to the storage area.

The automatism of this production process has eased the workload for the employees. The manual handling of the products together with the dangers associated with this process have been minimised and noise related problems have been eliminated. Safety plays a very important role not only at Fontenay, with its 60 employees, but also throughout the whole of the Stradal group. Stradal has implemented a national safety programme to improve safety at all work stations. The Perfect production system is a perfect example of the company's policy. FURTHER INFORMATION

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The immaculate quality of the the concrete part is immediately obvious.



The storage area for manhole components at Stradal

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Modular plants and systems for production and handling of concrete pipes, manhole components and special elements.



