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Manhole production totally streamlined at Beton Bernrieder

The Beton Bernrieder family business in Rosenheim sees it as important to constantly gear its range and its in-house production programme to market requirements, to offer customers the very products and services actually required in construction. An important step in this strategy was taken in spring 2010 with the commissioning of a Perfect production system. The move to individual production of monolithic Concrete manhole bases up to a nominal width of DN1500 was the first phase in an investment programme to boost the market position of this traditional company. In the second phase production was switched to a new system for larger manhole components. The Magic2500 supplied by Schlüsselbauer means that manhole rings, cones and 3-chamber rings up to DN2500 can now be made.



Perfect manhole bases are a common feature in the dispatch area at Betonwerk Bernrieder in Rosenheim since spring 2010.

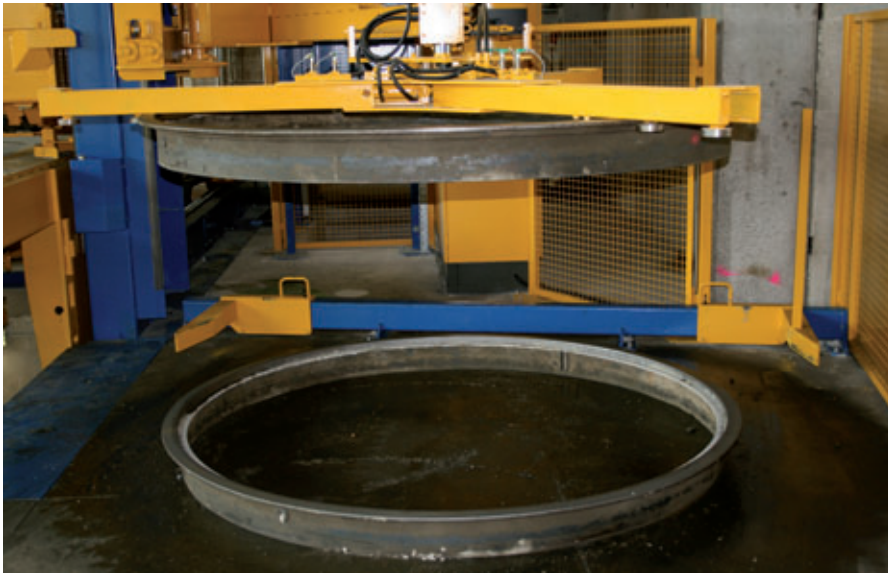


The Magic 2500 production system for the manufacture of precast elements with an external diameter of up to 2,700 mm.

The Magic2500 is a production system, on which large-format precast elements can be produced economically and with that flexibility so familiar to the Magic concept. The production capacity of the machine runs to an external diameter of 2,700 mm and a product weight of 3,000 kg. The Magic 2500 has a quick mould exchange system that allows the daily production programme to switch smoothly to other widths or products. The system can be converted in less than an hour with the result that significant output is guaranteed even if the production schedule has to be changed at short notice.

At Beton Bernrieder it is mainly manhole rings and cones in the nominal widths DN2000 and DN2500 that are produced on the new system. Manhole rings are manufactured in the building heights 500, 750 and 1,000 mm with the wall thickness of 90 or 100 mm depending on the nominal width. Plastic sleeves are vibrated in for the fitting of steps when required. Large-format cones in the two nominal widths mentioned are produced in building heights 600 mm and given stacking cams so that the hardened parts can be stacked in piles in the store area without any damage thereby optimising space requirements. Sink rings and other special parts can be made if required on the system alongside the frequently used manhole rings and cones.

The freshly de-moulded products are carried off in an electrical cart and the entire production is run by one operator, as the production system has been fitted with an automatic pallet insert device. By running the new Magic2500 Beton Bernrieder can enhance the cost-effectiveness of producing large parts and the product quality is guaranteed at the level demanded by both the manufacturer and customers.



The automatic pallet insert device means the entire production system can be run by one man.



Large-format products in different building heights are produced in very short cycle times by the Magic 2500.

Manufacturing expertise and customer focus as strategic alignment

„Our employees should have the back-up of state of the art machine technology as they serve our customers.“ True to this company philosophy espoused by the Bernrieder Family, a Perfect production system was purchased to produce individual manhole bases prior to the commissioning of the Magic2500. This was also commissioned in the spring of 2010 and tailor-made products have already been delivered since April.

„As a long-established concrete plant, we advise and serve private customers, building contractors and builders' supplier so that they can complete their building pro-

jects on time and on budget,“ is how Managing Director Anton Bernrieder jun. describes the focus of the company's management. Nowadays the product range covers a wide selection of precast parts both for civil engineering in the areas of manhole construction, wastewater treatment and separators, drainage, hydraulic engineering and cable laying and for structural engineering and landscaping. Paving, kerbstones and garden tiles are also produced as are garages and precast parts for bridge buildings. On the one hand, the wide range of production represents one of the company's success factors with fluctuations in demand in certain areas leading to a comparatively lower risk for the company itself, while on the other hand the wide range leads to increased demands for flexi-

ble production systems. With the two new production systems Perfect and Magic2500, Beton Bernrieder is excellently placed to meet these requirements.

Flexibility for Beton Bernrieder however, is not just essential in its own production. In particular in duct construction, the objective is to make it possible for planners and decision-makers to install sewage lines with an ideal hydraulic course and correspondingly greater service life for the entire system. In this respect the hubs of the sewage systems - manhole bases - will in future be adapted 100% to the project requirements. Alongside the number and diameter, in future the engineer will also specify the angle and incline of the pipe connections required at the planning stage. Pipe connections



The products are removed from the system in an electrical cart.



Drainage rings DN2500 in the hardening area.



Drainage rings DN2500 in the outside store.



The hot-wire saws that have proved so successful over the years in everyday production are used to produce the EPS-negative channel moulds for the Perfect production.



Tailor-made monolithic Perfect concrete manhole bases are produced from standard concrete C40/50 and from high-performance concrete C60/75.

up to DN1000 and manhole nominal widths of DN1000, DN1200 up to DN1500 are created in the Perfect production technology.

While at Bernrieder in the Perfect manhole base, the inlets are connected corresponding to the height of the channel as standard and the channels have a standard gradient of 1 %, each customer is now free to specify his individual requirements and forward these to Beton Bernrieder. The manhole base made to these requirements is ready in short time for delivery to the site. Downtime on the site and the associated additional costs – in particular with drainage works on public roads – can thus be eliminated or at least kept to a minimum.

Perfect with integrated seals – easy to fit and safe

Alongside the exact adjustment of bend and pitch of all intakes, integrated seals can be used for nearly all current pipe connections. The seals can be integrated during manufacture even for large external diameters, thus forming a firm bond with the finished concrete part. The connection angle and the vertical pitch of the pipe connection are in the process adjusted exactly to the project speci-

fications. Looked at over the years, the seal only needs to fulfil its most important task: i.e. properly seal the connection between the pipe and manhole base. While sealing technology matches the long life of precast concrete parts, an integrated seal also offers benefits in day to day construction.

Seals are no longer separate parts of pipe and manhole deliveries to the site but fitted ready and accurately at the spot where they are needed. Loss or damage to the seal during transport or storage of the component is to a large extent ruled out. They are now available along with Perfect manhole bases in many parts of Europe.

FURTHER INFORMATION

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