

High quality with low labor costs: Next manhole base production system in the USA goes into operation at Precast Supply

■ Mag. Christian Weinberger MBA, Schlüsselbauer Technology, Austria

Mark Howard is the proud owner of the North Carolina based Precast Supply Company, a family-owned, second-generation company that produces precast concrete components. Howard and his team mainly supply the market with manhole components for wastewater sewage systems and surface drainage, but Howard wanted to set himself apart from his competition. After much research, Howard decided the best way to do this was to invest in Schlüsselbauer Technology's Perfect manhole base production system. Implementing the Perfect system, which consistently produces high quality components with less personnel costs, places Precast Supply in a unique position within the region. By manufacturing Perfect's custom-made monolithic manhole bases, Precast Supply is now making installations simpler, safer, and faster for their customers. Going forward, Precast Supply's Perfect manhole bases will help to secure the future of this company and of the manhole infrastructure on the US East Coast.

Precast Supply uses the new production technology to produce monolithic manhole bases in nominal widths of 48 or 60 inches (1,219 or 1,524 mm). The standard construction height is 4 feet (1,219 mm), and the most frequently ordered pipe connections range from 6 to 20 inches (152 to 508 mm). If required, the manhole bases can be equipped with a continuous safeguard to prevent uplift in order to meet different project requirements. The moulds for this can be adapted accordingly. The hardened components are demoulded the next day using a turning gripper with a hydraulic clamp, which helps improve the efficiency and safety of the company's production and team. The turning gripper and hall crane are then used to move products to the forklift's lifting point, ready for storage in the outdoor area.

Precast Supply also maximizes convenience and safety on construction sites with cast-in lifting anchors in its products. These lifting anchors ensure the precast components are

Precast Supply Company is located on the East Coast of the US, in the State of North Carolina





Perfect Forming Technology - this term refers to the casting moulds for high-quality concrete components that are constantly being optimized by Schlüsselbauer Technology

moved securely until they are placed in the trench, and they make it easier to accurately position the base and connect them to the concrete or plastic pipes. These are further aspects that were intensley worked out by Precast Supply and Schlüsselbauer Technology during the project planning stage and whose value Howard recognizes: "The Schlüsselbauer engineers are real perfectionists. They gave every single detail their full attention."

Before deciding to partner with Schlüsselbauer Technologies and the PERFECT base production system, Howard travelled the United States and Europe, exploring all his possibilities for a proven and viable path forward. He saw the flexibility and simplicity in the way PERFECT is able to produce inverted channels by cutting and piecing foam parts into any configuration needed. So, despite the differing product details he saw being produced in other regions versus what he needed to produce at home, Howard knew PERFECT would more than meet his needs. Every single aspect, from the preparation of the moulds including EPS channel and steel reinforcement to filling with self-compacting concrete (SCC), was analyzed in close consultation with the experts from Schlüsselbauer Technology. Ultimately Howard not only wants to ensure that his new production system meets all the day-to-day requirements, he is also keen to demonstrate Perfect Base's production to other interested parties and he is extremely proud and impressed with the first manhole bases they have produced: "We look forward to welcoming potential future users of this system at our company to see it in action!"

Schlüsselbauer Technology developed the Perfect production system 15 years ago, and it has since established itself as the most frequently used technology for manufacturing individual monolithic concrete manhole bases in Europe and North America. The components produced using this



The casting moulds that have been prepared with EPS channels and steel reinforcement are ready to be filled with self-compacting concrete



Precast Supply uses a hydraulic turning gripper to safely demould and turn the components



Mark Howard and son, Scott, are impressed by the quality of the new Precast Supply made Perfect manhole bases



High-quality concrete manholes from their very beginning—the first products from the new production are now ready for delivery and installation

system range from DN800 to DN2100 in any construction height and in line with local specifications. The variety of different pipe connections available caters to the wide range of premoulded recess parts made from EPS. These types of moulded parts are available for both the installation of integrated gaskets and simple recesses, into which the boots that are frequently used in the US for the pipe connection can be inserted later. Across the board, the supply of these Perfect manhole bases helps reduce the work required on construction sites and it increases the added-value of precast plants.

Howard sums up the significance of the new customer and project-specific manhole bases: "These components will give us a huge competitive advantage. The quality produced by the Perfect system is accepted by municipalities and engineering consultancies alike. And our customers also benefit from simpler installation on the construction site."

FURTHER INFORMATION



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