

Prinzing Pfeiffer, Limburg an der Lahn, Germany

New Production Capacity for Large Infrastructure Projects in Vietnam: Thanh Tien Company Ltd. Invests in Two Production Systems

Vietnam's infrastructure is expanding at a remarkable pace, and with that growth comes an urgent, sustained demand for high-quality precast concrete products. Nowhere is this more apparent than in the country's central and northern regions, where major road, drainage, and urban development projects are driving continuous requirements for concrete pipes and box culverts across a wide range of sizes. To meet this demand head-on, Thanh Tien Company Ltd., a member of the OIC Group, has made a decisive investment in two state-of-the-art production systems from Prinzing Pfeiffer: the fully automatic Radial Press RP 1230-4 for reinforced and non-reinforced concrete pipe production up to DN 1200, and the flexible Variant 3600E(D) production system for large-diameter concrete pipes and box culverts. Together, these investments have substantially expanded Thanh Tien's manufacturing capabilities and positioned the company as a competitive supplier for infrastructure projects throughout Vietnam.

OIC Group - a Growing Player in Vietnam's Concrete Industry

The OIC Group has steadily established itself as a respected supplier of concrete products for infrastructure and construction projects throughout Vietnam. With a strategic emphasis on quality, innovation, and sustainable development, the group has consistently pursued investment in modern production technology as a means of strengthening its competitive position. The decision to partner with Prinzing Pfeiffer was shaped directly by market conditions: rapidly increasing demand for high-performance precast concrete elements required for road construction, drainage systems, urban infrastructure, and industrial development across the country made the expansion not only timely but necessary.

High-Performance Concrete Pipe Production with the Radial Press RP 1230-4

A centerpiece of the investment is the fully automatic Radial Press RP 1230-4, a high-output concrete pipe machine engineered for the efficient production of both reinforced and



Side view Radial Press RP 1230-4

non-reinforced circular concrete pipes. The system produces bell-end concrete pipes with nominal diameters ranging from DN 300 to DN 1200 and a maximum product length of 3.0 m, all in compliance with applicable Vietnamese national standards. Beyond standard pipe production, the Radial Press also accommodates a range of specialty products, including jacking pipes, double spigot pipes, manholes, and slotted drain-pipes, giving Thanh Tien meaningful versatility within a single machine platform.

Efficient Machine Technology with Advanced Automation

The architecture of the Radial Press reflects a thorough engineering approach, with each subassembly designed to work in close coordination with the others. The result is a machine that tolerates the demanding rhythms of daily production while delivering consistent, high-volume output. The foundation of the system is an imposing portal-shaped machine frame, anchored approximately two meters below floor level. The upper section of the frame houses the main gearbox, which drives both the chrome-plated main shaft and the counter-rotating press head. A fixed shaft bearing provides additional frame rigidity while supporting the main shaft, and the working table centers the top of the outer mould via an insert ring. One leg of the frame serves as the pivot axis for a turntable, on which two outer moulds are typically mounted on insert rings and alternately rotated into the machine center

for continuous pipe production. The operator platform and frame reinforcement are bolted to the frame and anchored to the hall floor.

The frame reinforcement supports the concrete hopper above the working table and provides the track for an optional skip hoist, used primarily when concrete is fed via bucket conveyor. A continuously adjustable conveyor belt draws concrete from the hopper and delivers the precise quantity needed into the centered of mould. Below floor level, a vibrating bell-end compactor is installed with hydraulically driven vertical synchronous movement. Counter-rotating vibrators beneath the rotating upper section of the bell-end compactor provide additional compaction at the pipe bell ends during the cycle.

Two independent hydraulic units serve distinct functions: the first supplies oil to the two independent hydraulic drives of the main gearbox, while the second regulates the speeds of all auxiliary hydraulic functions, including the lifting unit, working table, bell-end compactor, turntable, and spigot-end former. Both systems are equipped with components from globally recognized suppliers. The main hydraulic unit covers a broad speed range, reliably delivering high rotational speeds for small nominal pipe sizes and reduced speeds for larger diameters, while maintaining the high torque reserves that allow the compaction controller to compensate effectively for load peaks.



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A look inside the Radial Press production hall



From left to right: Andreas Bartuli, Head of Sales Prinzing Pfeiffer; Le Minh Hung, Director Hung Quoc Service-Trade-Technique Co. Ltd.; Phan Dang Huệ, Director Pipe Factory; Mr Thao, Production Manager

The complete electrical control system is built on high-quality Siemens components and comprises the control cabinet, main hydraulic power cabinet, control desk, and hand-operated panel. The integrated HMI Comfort Panel KP provides an intuitive operator interface, with a high-resolution widescreen display and access to all manual functions. An integrated online maintenance system enables program changes and software updates via internet connection. A comprehensive array of light barriers ensures that the machine meets all required safety standards.

The interaction of these components, proven across Radial Press installations worldwide, delivers a consistent set of performance advantages: superior-quality reinforced and non-reinforced concrete pipes with high dimensional accuracy and proven watertightness; optimal reinforcement coverage and freedom from settlement cracks; high production throughput with minimal labor requirements; smooth, closed pipe surfaces; uniform aggregate distribution; minimized concrete consumption; consistent product quality largely independent of individual operator attention; and straightforward, safe machine operation.

Optional features including the QCS quick-change system, the Next Base software platform, the Data Analyzer reporting system, and Smart Check inspection services provide additional flexibility and long-term operational reliability.

Variant 3600E (D) - Flexible Production for Large Concrete Products

Alongside the Radial Press, Thanh Tien installed the Variant 3600E(D), a single-station vibro-compaction system designed for the production of large concrete pipes and box culverts, with provisions already in place for future expansion to a double-station configuration. The machine enables the production of circular concrete pipes up to DN 3600 mm and

non-circular products such as box culverts up to an outer dimension of 3500 x 3500 mm, with product lengths of up to 2.5 m.

The Variant operates as an underfloor vibration machine, a design choice that significantly reduces noise emissions and isolates vibration from the surrounding production environment. The stationary pressing unit is fixed within the machine pit, and the centrally mounted filling and dosing device is equipped with a rotating discharge conveyor positioned beneath the frequency-controlled main conveyor belt.

Concrete compaction is performed by a central vibrator, with vibrator size selected according to the product geometry and dimensions. The underframe that houses the central vibrator and complete drive unit is fixed on the underfloor foundation, in keeping with best practices for operator safety and noise reduction. Finished products are transported in the outer mould by overhead crane, with primary demoulding performed on the curing area.

The modular design of the Variant platform enables efficient manufacturing across a wide range of concrete and reinforced concrete product types. Powerful central vibrators deliver high, uniform compaction in large and thick-walled products, and automatic concrete feeding ensures optimal reinforcement cage coating and precise fill levels throughout the placement process.

Additional advantages include:

- Maximum flexibility through modular design
- The ability to expand to a double-station system in the future
- High dimensional accuracy achieved by transporting fresh products within outer moulds
- A central hydraulic unit serving essential machine functions including demoulding and spigot forming



Variant 3600E (D) for large concrete pipes and box culverts production

- Intuitive machine controls adapted to the operator
- SmartParts – the online solution for spare parts documentation and component inquiries

As with the Radial Press, optional features including modular moulds, modular base pallets, modular supporting frames, the Next Base software platform, the Data Analyzer reporting system, and Smart Check inspection services extend the system's flexibility and long-term reliability

Close Cooperation During Project Realization

The relationship between Thanh Tien and Prinzing Pfeiffer was first established in 2022 through regional agent Le Minh Hung. By 2024, the two companies had entered into detailed discussions to identify the production solution best suited to Thanh Tien's requirements. As part of the evaluation process, the customer visited several active Radial Press installations in Vietnam, where candid feedback from existing users played a meaningful role in shaping the final decision. Following further discussions regarding equipment configuration, plant layout, and product design requirements, the contract was signed in April 2024 with the support of Mr. Hung and Prinzing Pfeiffer representative Mr. Steffen Fauth. According to Mr. Ho Van Trung, Vice General Manager, the plant visits, and direct conversations with established customers provided the insights that ultimately convinced the management team to select Prinzing Pfeiffer as their technology partner.

Successful Installation and Commissioning

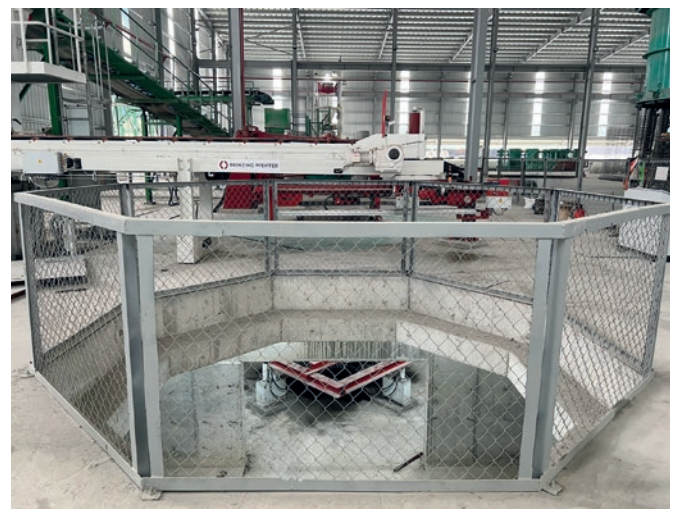
Installation and commissioning were carried out in close collaboration between the Thanh Tien team and Prinzing Pfeiffer supervisors Marwin, Mark, and Alexey. Mr. Tran Duc Thao, Production Manager, described the experience in direct terms: "The commissioning process and training were very fast, professional and completely satisfactory. Mr. Marwin brought a lot of experience and helped us with every question, even after leaving our plant." Factory Director Mr. Phan Dang Hue echoed that assessment: "The teamwork with the Prinzing Pfeiffer supervisors was very good, friendly and professional."

Strengthening Market Position and Creating New Opportunities

The impact of the new equipment has already been felt, both within the company and in the broader regional economy. According to Mr. Hue, the expanded production facilities have contributed to job creation and development in the province. At the same time, the gains in production capacity and product quality have tangibly improved the company's competitive standing. "With the outstanding performance and quality of the concrete pipes and box culverts, we have gained a significant market share and positioned ourselves strongly for the future," says Mr. Hue.

Positive Outlook for Future Cooperation

Following the successful completion of the project, Thanh Tien's leadership is looking ahead with confidence. "Our great experience with this project and the strong relationship with Prinzing Pfeiffer, as well as the performance of the machinery, give us a lot of confidence and optimism for the future," says Mr. Ho Van Trung.



Prepared Variant pit for future double-station expansion



Lifting process with overhead crane



Concrete pipes ready for dispatch

With the installation of the Radial Press RP 1230-4 and the Variant 3600E(D), Thanh Tien has established a production platform capable of addressing both the immediate and long-term demands of Vietnam's infrastructure market. The combination of advanced machine technology and the collaborative working relationship between customer and supplier provides a solid foundation for efficient production, consistent product quality, and sustained competitiveness in one of Southeast Asia's most dynamic growth sectors. As Mr. Phan Dang Hue puts it: "The target and philosophy

of our company is stable development and a green environment. Prinzing Pfeiffer can support us in achieving these goals."



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Topwerk Open House 2026: "Shape the Future"

Topwerk Group cordially invites you to its in-house exhibition, "Topwerk Open House 2026," taking place on September 24-25, 2026, at its headquarters in Burbach-Wahlbach. Under the guiding theme "Shape the Future," Topwerk will showcase how high-performance machinery, intelligent production systems, and smart digital tools are transforming concrete production worldwide.

Live demonstrations are planned from the business units Hess Group, SR Schindler, and Prinzing Pfeiffer - ranging from block and paver machines to surface refinement, to precast, concrete manhole, and pipe production. In addition, visitors will gain hands-on insights into new workflows and production concepts.

A major focus will be on service: visitors will learn about Topwerk's service philosophy and gain insight into digital platforms that provide a 360° view of their equipment.

The in-house exhibition offers a great opportunity to learn about the latest innovations, discuss projects, and explore tailored solutions directly with the teams from Topwerk, Hess Group, SR Schindler, and Prinzing Pfeiffer.

FURTHER INFORMATION



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