

Putzmeister

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PM

POST



# HIGHLIGHTS



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EVENTS

# BAUMA 2025

## "TOGETHER FOR TOMORROW"

Under this motto, Putzmeister is showcasing its latest innovations and future-oriented technologies at bauma 2025, expressing its vision of a world in which housing and infrastructure are affordable and sustainable.

This is how we are shaping the construction industry of tomorrow, today.

Visit us in Hall B6 and experience how our technologies are redefining the future of construction – we look forward to welcoming you there in person!



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BAUMA MUNICH 2025

# TOGETHER FOR TOMORROW

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PUTZMEISTER OCEANIA

# THE FIRST PUTZMEISTER iONTRON DOWN UNDER!



## iONTRON

**Concrete Logistics took a leap towards a more sustainable future with the purchase of the Oceania region's first Putzmeister iONTRON M42-5.**

After months of anticipation, Putzmeister Oceania were excited to be onsite for the very first slab pour "Down Under" using a Putzmeister M42-5 iONTRON hybrid concrete pump. The M42-5 iONTRON was purchased by New Zealand company Concrete Logistics, who first set their sights on it at Bauma 2022, knowing it would not only be the perfect addition for a particular project, but a clear step their business could take towards a more sustainable future.

The project they had in mind was the Central Interceptor (CI), a wastewater infrastructure project in Auckland being undertaken by Watercare Services Limited (Watercare). It is New Zealand's largest wastewater project, with construction of the super-sized new 16.2-kilometre and 4.5-metre diameter wastewater tunnel being completed by Ghella Abergeldie Joint Venture (GAJV). The tunnel will enable better management of the city's wastewater, so everyone can enjoy cleaner inland waterways and open spaces across the central city. >>



Having been part of the CI team since the project began in 2019, Concrete Logistics had a clear understanding of how important it was to Watercare to build the tunnel in the best, most efficient and sustainable way, and knew with the iONTRON they could help them with their mission.

There was a great buzz onsite as the Putzmeister iONTRON was plugged in for its first slab pour at the CI Mangere site. Not only was this the first pour for the new pump, but also the first time in not just New Zealand, but the whole of Oceania, pumping concrete with a boom pump using electricity rather than the conventional diesel engine. If a diesel pump had been used, 442 kgs of emissions would have been produced during the six-hour (roughly 58 tonne) pour. By utilising the site power and putting the Putzmeister iONTRON in electric mode, this pour produced just 19kgs of carbon emissions – a massive 95.7% saving in emissions!

However, that wasn't all that had people talking – everyone was also impressed by the quiet operation, with Sandra Edwards, GAJV's Social Responsibility Manager,



commenting during the pour "we are standing here and we can have a conversation.. Really easily! ... And it's really important on a number of our sites where we're working next to people's houses". Ray Charman, Concrete Logistics General Manager, described it as "a game changer for where I think we would like to go", to reduce carbon emissions, operate more sustainably and take the future into their hands.

With its simple plug and pump operation, and the flexibility to operate the diesel engine when site power is not available, we've no doubt it will be.



To see the pour in action visit [LinkedIn](#)



For more about the project visit [Central Interceptor](#)



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# PUTZMEISTER TÜRKIYE AND YILDIZ TECHNICAL UNIVERSITY ENTER INTO PARTNERSHIP TO PROMOTE ENGINEERING EDUCATION

**Putzmeister Türkiye has signed a COOP protocol with Yıldız Technical University (YTÜ) to enhance the collaboration between the industry and university. The partnership is centered around the university's Cooperative Education (CO-OP) model, aimed at providing hands-on industrial experience for young engineers.**

Following the protocol, Putzmeister hosted YTÜ faculty members at their facility to demonstrate advanced machine manufacturing processes. Putzmeister expressed their gratitude to the university and highlighted their commitment to supporting future engineers through this collaboration.

After the COOP protocol was signed between Putzmeister and Yıldız Technical University, faculty members, including the Dean of the Faculty of Mechanical Engineering Prof. Dr. Zehra Yumurtacı and the Heads of the Mechanical and Mechatronics Engineering Departments,

visited Putzmeister's factory. They closely examined the production process and experienced the manufacturing stages of advanced technology machines firsthand.

Putzmeister Türkiye made a statement regarding the COOP protocol, emphasizing that this collaboration marks a significant step toward providing young engineering candidates with valuable, hands-on knowledge. They expressed their gratitude to the esteemed academics from Yıldız Technical University, one of Türkiye's most established educational institutions, for their efforts. Putzmeister affirmed their ongoing commitment to supporting this partnership now and in the future.





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CONSTRUCTION MACHINERY  
ME AWARDS 2024

# PUTZMEISTER HAS BEEN HONORED WITH THE CONCRETE PUMP OF THE YEAR AWARD IN THE MIDDLE EAST



“The concrete pump of the year award highlights the best in concrete pumping technology, essential for efficient and precise concrete placement in construction projects. Concrete pumps play a critical role in the construction of high-rise buildings and large infrastructure projects. The Putzmeister BSF M56 is celebrated for its high precision and reliability in concrete pumping. Its cutting-edge technology ensures efficient and accurate concrete placement, making it a vital tool for large-scale construction projects.”





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PRODUCT NEWS

# THE BOSS ON SITE

THE ESTRICHBOY DC 260 IS BACK – WITH MORE POWER AND EVEN MORE CONVENIENCE

**The EstrichBoy DC 260 is back with two powerful versions. The compressed air conveyor for earth-moist screeds from the Brinkmann brand has always had many fans. The legendary EstrichBoy series has been at home in many markets around the world for over 55 years.**

The EstrichBoy DC 260, which founded the success of this series, is being revitalised. Its robust, solid construction, durability and simple operation are legendary and many customers also appreciate its high resale value as a used machine. All of this has been combined in the new version of the EstrichBoy DC 260, which stands out with even more efficient working, extended standard equipment, practical options and, in particular, a pleasantly clear operating concept.

Its most important advantages in brief: It fulfils strict environmental and noise protection requirements and works with optional BluePower function, i.e. individual adjustment of the engine speed.

The new EstrichBoy DC 260 also offers numerous additional options for all requirements on the construction site, has a hydraulic mixing unit with safe overload protection, good accessibility to all important service and maintenance points and all this with a very simple operating concept – and this applies to both powerful versions!

In the DC 260/45 version, the extremely economical 3-cylinder Deutz engine with 36.4 kW ensures a delivery rate of up to 5 m<sup>3</sup>/h. With the DC 260/55, the delivery rate can even be increased to over 5.2 m<sup>2</sup>/h per hour with an even more powerful 44.5 kW Deutz drive engine.

All machine variants on offer fulfil the strict Stage V emissions standard, meaning that the EstrichBoy can be used anywhere in the EU and Switzerland. Due to its TRGS 554 conformity, it can also be operated in (partially) enclosed areas such as underground car parks without any problems.

With the new EstrichBoy, you are well equipped for the future!



ESTRICHBOY.DE

## PUTZMEISTER AND TRATOLIXO

# GENERATING ENERGY AND COMPOST WITH URBAN WASTE



Compost ready to be sold

**Tratolixo, Portugal's largest waste management company, already had two Putzmeister lines for converting waste from areas west of Lisbon into electric power and compost and is now adding a third to increase production and as a back-up option.**

Tratolixo's waste-to-energy plant in Abrunheira, a town near Lisbon, has been managing the waste of nearly a million inhabitants from areas to the west of the city, specifically the towns of Cascáis, Oeiras, Mafra and Sintra, since 2012. This plant is the largest in Portugal, with a processing capacity of 75,000 t per year. It produces electric power and compost through anaerobic digestion.

### How does this process work?

Once the plant receives the urban waste it is conveyed to the Putzmeister feed hoppers designed specifically for this client by a conveyor belt. Just underneath are THS 2052 MX screw conveyors and KOS 1480 dual-piston pumps which pump the waste to three digestion towers with a capacity of 35,000 t/year each. The fermentation process, which generates methane gas, takes place in these towers.

At the same time, a part of the fermented waste in the digestion tower is recirculated by other KOS 1070 piston pumps from Putzmeister in order to mix it with other waste be-

fore returning to the tower. The methane gas generated by the process is stored in a gasometer at the same plant or converted into electric power that is then fed directly into the power grid.

### Nothing goes to waste at Tratolixo – not even waste.

The waste in the digestion towers is analysed daily and once it is considered to no longer meet the requirements for producing gas, it is converted into compost for agri- >>



Three digestion towers



View of the plant





cultural use. Similarly, wastewater is conveyed to a treatment plant and, once treated, returns to be used at the plant as it is not suitable for human consumption.

**Technology from Putzmeister and service from Maquinter – the keys to success**

When pumping biomass, organic waste and food scraps, it is of vital importance to be able to rely on pumps and supply lines that are leak-proof and free from faults, as anything that disturbs the flow of material could lead to obstructions and blockages.

Putzmeister has been amassing extensive experience in conveying biomass since the late 1980s. Tratolixo had already been operating Putzmeister technology in two other lines in this plant since it was opened in 2012. In 2024, this is expanded with a third line due to an increase in production. >>



HA 55 E hydraulic power pack of the third line, the other two are visible in the background



Reception hopper, screw conveyor and feed pump of the third line. You can also see how the recirculation pipework returns to the reception hopper



Third recirculation pump



In Tratolixo's plant in Abrunheira, there are three KOS 1480 piston pumps for supply pumping and three KOS 1070 pumps for recirculation pumping. The KOS models consist of a robust feed hopper, two reinforced supply cylinders with a piston each and an S transfer tube for switching over with two powerful piston cylinders, meaning that pumping foreign bodies and dry or viscous material is no problem. At the Tratolixo plant, these are powered by three HA 55 E hydraulic power packs, with open hydraulic circuits and electric drives, and an SEP 55 control panel. In addition, the lines are also equipped with three reception hoppers designed by Putzmeister to match the specific requirements of this plant and three Putzmeister THS 2052 MX systems, which thoroughly mix the initial mixture with screw conveyors so that the pumps can deal with the waste more easily. While the Putzmeister equipment was designed to be hard-wearing, wear is inevitable and Tratolixo relies on the team from Maquinter, the official Putzmeister dealer in Portugal, for maintenance and replacement parts. Without a doubt, this team was an important factor in the decision to invest in further Putzmeister equipment. Maquinter's team of Service technicians travels to the Abrunheira plant every year to carry out extensive preventative maintenance, which is crucial to ensure a long service life for the systems. But that is not all. Maquinter also played an important role in the entire technical consulting process for commissioning the system, lending the technical engineering expertise required by the project.



Team from Tratolixo, Putzmeister and Maquinter during the visit to the plant

### GENERAL TECHNICAL DATA

Material	Organic waste from urban areas
Density	35% solid waste
pH	6 – 8
Size of foreign bodies	< 60 mm
Supply pumping operations (max.)	42 m³/h at 5 bar
Recirculation pumping operations (max.)	20 m³/h at 5 bar
Supply pumping	16 h/day from Monday to Saturday (in two 8 h shifts)
Recirculation pumping	16 h/day every day (in two 8 h shifts)

### THS 2052 MX SCREW CONVEYORS

Drive	Hydraulic
Max. output	80 m³/h
Max. speed	40 rpm
Screw diameter	480 mm

### KOS 1480 P FEED PISTON PUMP

Operating output (at 85 %)	50 m³/h
Max. output (100 %)	58.8 m³/h
Pressure	10 bar
Delivery cylinder length	1400 mm
Delivery cylinder diameter	280 mm

### HA 55 E HYDRAULIC POWER PACK

Electric motor power	55 kW (IE3)
Electric motor speed	2000 rpm
Voltage	400 V at 50 Hz

### KOS 1070 RECIRCULATION PISTON PUMP

Operating output (at 85 %)	30 m³/h
Max. output (100 %)	35.3 m³/h
Pressure	5 bar
Delivery cylinder length	1000 mm
Delivery cylinder diameter	230 mm



# RIVIERA TOWER ATHENS: A LANDMARK PROJECT IN GREECE

## Putzmeister Equipment

To meet the high demands of this project, cutting-edge equipment is being used on-site, including two Putzmeister concrete pumps (BSA 2107 HPE models), a BSA 1409D pump, and two MXR 32-4 stationary booms paired with RS850 climbing columns. These specialized machines ensure precise, high-volume concrete pumping, critical for a skyscraper of this magnitude.

The collaboration between the Putzmeister France Spare Parts department and Putzmeister's Parts team at the headquarters in Aichtal has been pivotal. Together, they coordinated the delivery of 500 meters of high-quality pipes essential for the concrete pumping operations. This logistical success highlights the teamwork and planning behind the scenes that are crucial to keeping the project on track.

As Riviera Tower continues to rise, it will not only redefine the skyline but also set a new benchmark for sustainable, future-proof luxury living in harmony with nature.

## ABOUT THE PROJECT

The Riviera Tower Athens in Greece is set to become a landmark in the country's architectural landscape. The construction began in 2023 and is expected to complete in 2026. Once finished, the tower will stand at an impressive 198 meters, making it the tallest building in Greece. This ambitious residential skyscraper will house 200 apartments across 50 floors, combining luxury living with a cutting-edge biophilic design that harmonizes with the Mediterranean landscape. By prioritizing sustainable resources and energy efficiency, the tower sets a new standard in eco-friendly luxury residences.

The project is led by Bouygues Bâtiment International (BBI) and Intrakat, two companies renowned for their expertise in large-scale construction.



[THEELLINIKONRIVIERATOWER.COM](https://theellinikonrivieratower.com)



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# EMPOWERING THE NEXT GENERATION OF TRADESPEOPLE WITH PUTZMEISTER



## PERMA-STRUCTO TEACHES TOMORROW'S BUILDERS THE SKILLS THEY NEED TODAY

**Like many contractors in the construction business, Perma-Structo is challenged with finding – and keeping – employees experienced in placing concrete. That's why the third generation of this Wisconsin-based foundation company have spent the last five years providing high school students with hands-on construction experience. This not only gives students top-notch experience in the trades, it helps fill the pipeline of enthusiastic employees who already have some experience in the field.**

This year, Perma-Structo participated in the School Building Trades Program, run by Tim O'Brien Homes, which builds homes in cooperation with high school trade programs in Southeast Wisconsin. The program

encourages students to learn and gain hands-on experience in the building industry with local trade partners. In August, Perma-Structo and 13 students from Knight Construction in the Oak Creek High School Trades Program began building a single-family home in Franklin, Wisconsin, located 24 km west of Milwaukee. It's the 29th home built in conjunction with high school students through the School Building Trades Program.

"We have worked with Oak Creek High School for many years, and we thoroughly enjoy being part of this collaboration and teaching the students," said Lindsay Beaudin from Perma-Structo.

The students began working on the home by doing the foundation work during their summer break, showing >>



early dedication to their potential career paths in the trades. They will continue to work on building the home through the school year, with an expected completion date of January 2025.

“It’s great because the high schoolers are dedicated to working alongside the trades to help in its completion and learning new skills that will help them in a future career option,” said Lindsay.



A student from Oak Creek High School gets hands-on experience operating Putzmeister’s Telebelt® 110

### Educating with Putzmeister Equipment

Cole Beaudin from Perma-Structo said Putzmeister equipment is the company’s first choice when it comes to pouring foundations. The company used one of their Telebelt® 110s to place stone and concrete for the footing of this home, plus a Putzmeister 36Z-Meter Boom Pump for the foundation walls.

“Putzmeister has a strong reputation in the industry for delivering high-quality and reliable equipment, which is why it’s always our top choice. The equipment contributes to the efficiency in concrete and stone placement, leading to faster set up times and less downtime and manual labor. We wouldn’t want to do a footing in today’s age without it,” said Cole.

These student-assisted builds usually take longer than others because the equipment operators and field supervisors regularly spend extra time explaining safety protocols and how the equipment works. But the ease of Putzmeister’s controls helps them stay on target.

“Putzmeister equipment is pretty easy to use, especially with the remote control. Working the Telebelt is like playing a video game, which appeals to a lot of kids. And it gives us the ability to easily place stone and concrete for the footings, which helps the students learn some basics in operating the equipment,” he explained.

The highlight for many of the students was getting the chance to operate the Telebelt, which operators and students used to place four loads of stone and 23 yards of standard footing mix in one day. “The kids were a little nervous about running it, but one student really got into it and pretty much ran the whole project. And he did a really good job,” Cole said.

Ozinga, the concrete supplier with a plant in Oak Creek, Wisconsin, also visited the build site to educate the students about how ready-mix concrete is made and batched. Students rotated between pouring concrete and listening to the ready-mix presentation so they could all participate in the action.

“It was nice to have the kids learn about what concrete is, like how concrete is the bread and cement is the flour. It’s great for them to learn what it takes to do a residential foundation and the type of materials that are put into it,” said Cole.

### A Mutually Beneficial Partnership

These projects aren’t just good for the kids – they’re good for the contractors, too. >>



One student runs the Putzmeister Telebelt® 110 while another ensures the concrete is poured properly under supervision from Perma-Structo employees



From these builds, Perma-Structo often recruits one to two full-time employees and additional seasonal employees (such as college-bound students before they leave for school) every year. Many of these seasonal students return multiple years in a row over their summer breaks – and one student even recruited his college roommate to work with Perma-Structo the following year.

“The kids we get from these trades’ programs are some of our best qualified hires. They come in at 18 years old having a very good understanding of what’s going to happen, versus somebody who just graduated high school and has never stepped foot onto a construction site,” said Cole.

Cole encourages all contractors and construction businesses to share their industry expertise. “Take the time to teach the youth, whether you’re a business owner or an equipment operator. It’s easy to say we don’t have the time or staff, but it’s important because the future of our industry starts with the youth. Taking the extra 15 minutes can go a long way.”

Perma-Structo will work with students in spring 2025 to build a second home, and they plan to tour the Putzmeister plant later this year, which will further expand students’ understanding of the top-notch equipment needed to pour concrete.



A high school student learns how to smooth out the wet concrete of the home’s foundation



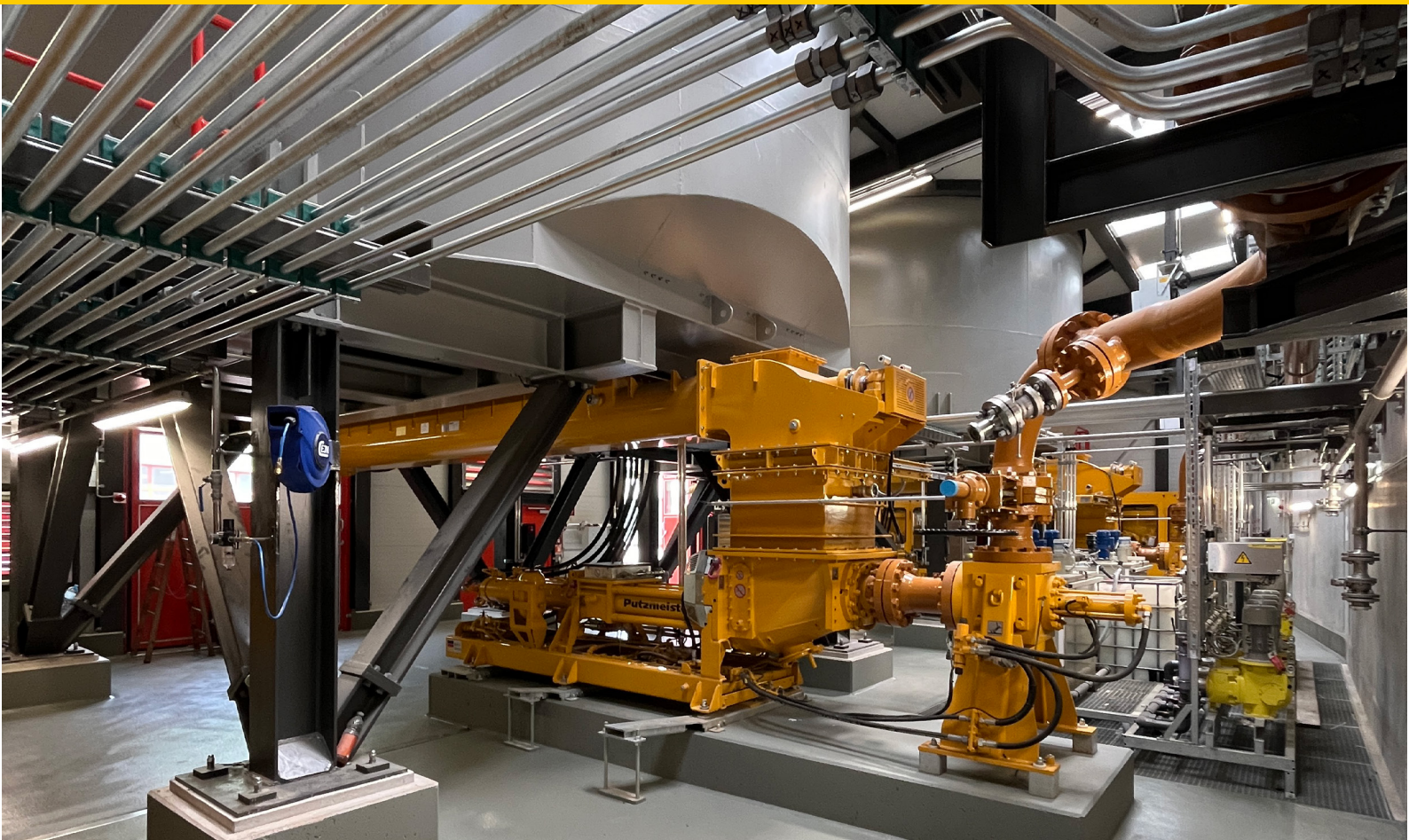
**Developer:** Neumann Developments - Pewaukee, Wisconsin  
**General Contractor:** Tim O’Brien Homes - Pewaukee, Wisconsin  
**Concrete Placement Contractor:** Perma-Structo - Sturtevant, WI

**Concrete Pumping Contractor:** Perma-Structo -Sturtevant, WI  
**Ready Mix Supplier:** Ozinga - Oak Creek, WI  
**Equipment:** Putzmeister Telebelt® TB 110 and 36Z-Meter Boom Pump



PUTZMEISTER IMPRESSES WITH QUALITY AND SERVICE

# REPLACEMENT INVESTMENTS FOR PISTON PUMPS IN INDUSTRIAL APPLICATIONS



After the first piston pumps from the Industrial Technology division were installed around half a century ago, replacement investments are a fundamental issue for our long-standing customers who depend on reliable and efficient pump technology. In recent years, many of our customers have replaced their Putzmeister piston pumps and pump systems, after countless hours of work, with modern solutions - from Putzmeister, of course!

But what are the reasons for this trusting choice?

### High-quality products for demanding applications

A key aspect is the consistently high quality of Putzmeister products, which are positioned in the premium segment. The reliability of the systems has proven itself over the years. Many companies appreciate the durability, efficiency and robust design, which is also convincing in extreme areas of application. >>



### Focus on service and maintenance

Another reason for the renewed decision in favour of Putzmeister is the comprehensive customer service. Our service team for industrial technology, consisting of 25 specialised technicians distributed across various service branches worldwide, makes it possible to carry out regular maintenance with original wear parts. This makes a decisive contribution to the longevity of the systems. If necessary, our specialised personnel are on hand to provide rapid support and solve problems promptly.

### Service branches in Germany

A total of 5 branches in central locations enable us to respond directly to the needs of our customers. This ensures a fast supply of spare parts and uncomplicated support from our service technicians specialising in industrial technology, which is of great importance for many companies.

### Global network and experience

Thanks to our international network of subsidiaries, dealers and partners, we can also offer comprehensive support outside Germany. With over 40 years of experience in industrial technology, we have in-depth knowledge that enables us to offer customised solutions for different requirements.

### Conclusion

The future belongs to those who focus on quality and first-class service - and Putzmeister remains the ideal partner for this. Replacement investments are an important decision for companies. The combination of quality, service and a strong network makes Putzmeister a reliable partner. Our customers benefit from our many years of experience and our commitment to offering them the best possible solution.

## CUSTOMER TESTIMONIALS:

**Florian Madl, Asset Operation Division, Wien Energie GmbH, Vienna, Austria: Replacement and expansion of the sewage sludge plant**

"Why did you choose Putzmeister?"  
**Putzmeister emerged as the best bidder in the course of the tendering process and as we already had very good experience with Putzmeister slurry pumps at the site, we also successfully completed this project together**

"What do you expect from this investment in the long term?"  
**This plant is a further building block for generating sustainable district heating and electricity with green fuel, as well as creating a further prerequisite for the circular economy - phosphorus recycling. >>**







## CUSTOMER TESTIMONIALS:

**Porgera Gold Mine from the perspective of Putzmeister's authorised dealer Peter Beasley, Business Development Manager, Beasley's Hydraulic Services, Australia/New Zealand/Papua New Guinea**

"At your customer, the operator of the Porgera Gold Mine, a Putzmeister system consisting of a piston pump, hydraulic unit and control cabinet was put into operation in 2010. In the meantime, the hydraulic unit has been replaced. The technically newer unit was to be integrated into the existing system, which could be realised thanks to the high level of expertise of the service technician from Beasley's Hydraulic Services. This meant that all other components could continue to be used. This system has been in continuous operation for 14 years.

In your experience, what are the reasons why your customers are highly loyal to Putzmeister when it comes to upcoming replacement investments?"

**In my experience, loyalty to Putzmeister is determined by the following factors:**

**1. Reliability and durability:**

Putzmeister pumps are known for their robust construction and their ability to work efficiently in harsh and demanding conditions. Their reliability in the demanding environment of Papua New Guinea has created a high level of trust.

**2. Innovative technology:**

Putzmeister integrates advanced technologies such as the PCF system for pulsation control and special, high-quality wear materials. The continuous pursuit of innovation ensures that the pumps remain at the forefront of industry standards.

**3. Low maintenance costs:**

Thanks to their efficient design and the use of wear-resistant components, Putzmeister pumps often require less maintenance and have longer maintenance intervals, which contributes to reduced downtimes and repair costs.

**4. After-sales support:**

Putzmeister offers a strong after-sales and maintenance service with an extensive network of service centres and spare parts availability.





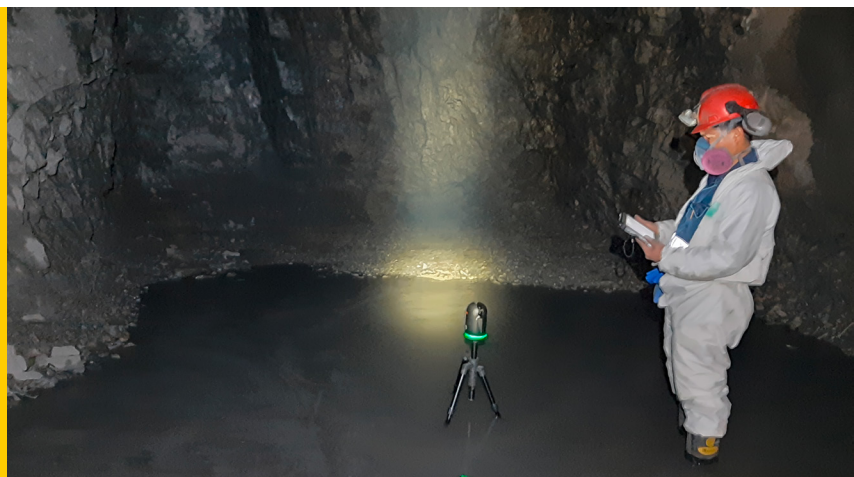
# COMPAÑÍA MINERA SANTA LUISA RELIES ON PUTZMEISTER GEOKRET 2.0 SYSTEM FOR SAFE AND INTELLIGENT SHOTCRETE IN ITS OPERATIONS

**Compañía Minera Santa Luisa mechanises shotcrete thickness control with Geokret 2.0, Putzmeister's system based on scanning the sprayed surface, significantly improving the process.**

Compañía Minera Santa Luisa has been present in the Peruvian market since 1964 and develops all types of mining activities, from exploration to exploitation, metallurgical treatment, and marketing of minerals at two production sites in the country. At the Huanzala mine, located about 400 km north of Lima and 4,000 m above sea level, it mines and processes zinc, lead, and copper in its own concentrator plant.

During these more than 50 years of production, the way of working has evolved a lot and today, with the development of the wet method and therobotics of the equipment, they have gone from doing the support work manually to doing it with robotic equipment. To do this, Compañía Minera Santa Luisa relies on Putzmeister robotic concrete distributors and, to complete the cycle, low-profile and very robust concrete mixers from the Putzmeister Mixkret range.

But Santa Luisa is going one step further and since 2023, in its commitment to develop a modern mining industry that respects the environment and the communities near its operations, as well as the safety of its personnel and the desire to improve its projections, it has mechanised the shotcrete thickness control with Putzmeister's Geokret 2.0 system. >>





### How Geokret 2.0 works

"The system is very simple, light and easy to transport," says Néstor Valdez Collque, Operations Manager at the Huanzala mine. "It consists of a laser without cables, and with the tripod it can be placed in the best area of the gallery to avoid dead spots, and it does not interrupt the normal work cycle, as the entire scanning process takes a maximum of 5 minutes (between the location and the scanning itself)," he adds.

And he is right, Geokret 2.0 was developed in collaboration between Putzmeister and Leica Geosystems, the renowned Swiss company for surveying systems and lenses, with the aim of creating a simple, fast and millimetre-accurate system:

1. Positioning the laser in an already supported safe area and initial scanning of the non-sprayed surface.
2. Standard shotcrete process
3. Second scan positioning the laser in a similar area to the first scan. Putzmeister and Leica's system is so accurate that it does not have to be the same location, as it is able to overlap both scans by using the geo-refraction of the first scan and a large point cloud, over 800,000 at the lowest resolution.

4. Thickness visualization via a heat map on the red-hot tablet almost instantly. This allows the operator to identify areas of under-thickness and over-thickness against the required thickness set by the operator at the start of the process, and to take corrective action.
5. Comprehensive analysis of the data collected by the Cyclone 3DR desktop software and decision making to improve the cycle.

After more than a year of using the system, the Huanzala mine is already reaping the benefits. "We have eliminated the exposure of our personnel to unsafe areas, which is essential for us, and we have better control of the shotcrete, both in terms of thickness and rebound, which allows us to take sustainable and effective corrective action. We expect to recoup our investment in just three and a half years. We are very pleased," says Néstor Valdez Collque, who adds: "The underground construction industry must work together and promote the most advanced technology, such as shotcrete thickness scanning, to lay the groundwork for the regulatory body to implement these standards with the safety of workers exposed to this work in mind."



**MORE INFO ABOUT GEOKRET 2.0**



Before (2022):  
Thickness testing  
with cores



Now (from 2023):  
Testing with  
Geokret 2.0



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A HOUSE FROM A MOBILE 3D PRINTER: PUTZMEISTER, SCHWENK, AND RUPP COMPLETE THEIR FIRST JOINT BUILDING PROJECT

# HOW BUNDLED INNOVATIVE STRENGTH CREATES A HOUSE – FRESH FROM THE 3D PRINTER!

A construction project in R Emmeltshofen marks a milestone: Here stands a building whose walls were not built using conventional methods but were printed using the mobile 3D printer KARLOS.

This innovative joint project by the companies Putzmeister, SCHWENK, and Rupp is a significant step forward for the construction industry and a powerful signal toward digitalization and sustainability.

An event in R Emmeltshofen has caused quite a stir: In just 29 printing hours, a building with a floor area of 95 square meters (10 x 9.5 m) was precisely printed. With this, the cooperation partners Putzmeister, SCHWENK and the Rupp Group have not only demonstrated the potential of 3D printing but also elevated the construction process to a new level. No lengthy setup or formwork was needed – the mobile 3D printer KARLOS from Putzmeister was ready to go in less than an hour and began, layer by layer, to build the structure, which serves as a local community center. The company developed the fully electric construction machine specifically for such projects. >>



Putzmeister

Putzmeister is a global leader in concrete pumping and develops innovative construction machinery that revolutionizes building processes. With the spin-off KARLOS-3D ([www.karlos-3d.com](http://www.karlos-3d.com)), Putzmeister is driving the industrialization of 3D concrete printing.



Baustoff leben

SCHWENK is one of Germany's leading manufacturers of cement and concrete and is committed to sustainable building materials.



RUPP  
GEBÄUDEDRUCK

The Rupp Group stands for advanced construction projects and innovative technologies in the construction sector.

[KARLOS-3D.COM](http://KARLOS-3D.COM)

[SCHWENK.DE](http://SCHWENK.DE)

[RUPP-GEBAEUEDRUCK.DE](http://RUPP-GEBAEUEDRUCK.DE)



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PUTZMEISTER WORLD



KARLOS

The building marks a milestone in the future of construction: faster, more efficient, and more sustainable. SCHWENK's concrete mix, with minimal CO<sub>2</sub> emissions during production and optimal resource utilization, makes a significant contribution. This saves not only time but also protects the environment – a win-win-win situation for project leaders, builders, and our planet. "This project is a crucial step towards further industrializing construction with additive manufacturing," says a spokesperson from the responsible construction company Rupp. "Here, digital planning and calculations merge with the use of advanced materials and innovative printing technology to create a completely new approach to building." The next step? A multi-family home, printed using the same technology – proof that 3D printing is scalable for larger projects as well.

This first-time collaboration between Putzmeister, SCHWENK, and Rupp is a prime example of transformation: combining efforts to achieve a high level of automation – this will fundamentally change the construction industry. The companies are confident of this and are providing projects like this as living proof: The future of construction has arrived.

## HOW DOES KARLOS WORK? IT'S SIMPLE.

With the 3D printer KARLOS, a house is almost created by itself! The machine prints solid concrete walls directly on-site, without the need for formwork. Thanks to a smart combination of a mobile concrete pump and robotic technology, the walls are built quickly and precisely. But KARLOS not only scores points for speed and cost-effectiveness: It operates fully electrically and with low emissions, using standard concrete with an 8 mm aggregate size. The entire construction process is based on digital models. The building plans are translated into printing layers and converted into machine code. Then, KARLOS prints the building layer by layer. The result: less manual labor, more safety, and a faster, automated construction process.



**A video showcasing the 3D-printed building with KARLOS illustrates the project: Watch the video of the construction here.**



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