

Putzmeister

#94 | SEPTEMBER | 2023

# PM POST



© Fehmarn A/S

## HIGHLIGHTS



### PRODUCT NEWS

- # iONTRON family: The hybrid BSF >>
- # iONTRON eMixer on tour of Germany >>
- # Ergonic 3, iSC and iBC >>



### PUTZMEISTER WORLD

- # Fehmarnbelt tunnel >>
- # Balcony renovation on a 15-story residential building >>
- # Sobha Hartland project in Dubai >>
- # Mataf expansion in Mecca >>
- # Concreting huge warehouses in Puyallup/USA >>
- # Very latest BSF 42-5 in the Middle East >>
- # Msikaba bridge project/South Africa >>
- # Mining projects in Zimbabwe >>
- # Safety campaign in Singapore >>
- # Putzmeister strategy >>



Putzmeister

FOLLOW US:







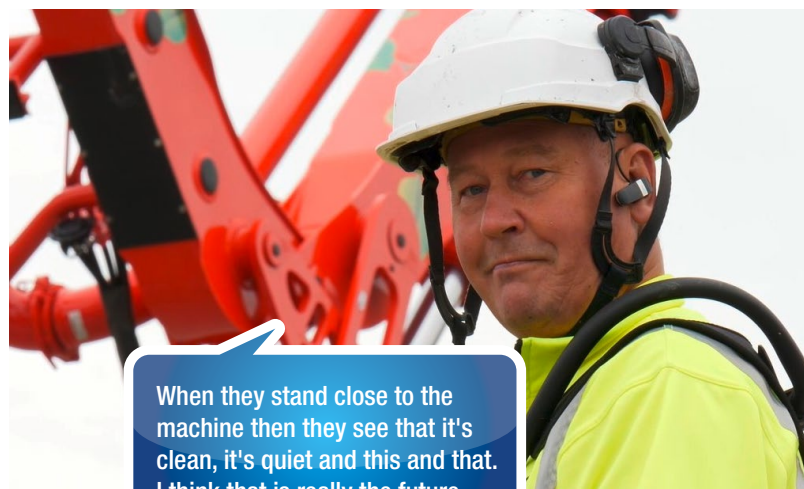
**iONTRON**

# iONTRON FAMILY: UPDATE ON THE MARKET LAUNCH OF THE HYBRID BSF

In March 2021, we launched the first iONTRON product on the market: the first ever Putzmeister hybrid truck-mounted concrete pump. From then on, we have seen our customers' interest and fascination with more sustainable products steadily increase. This trend was evident at bauma 2022 in October, when we introduced the electric mixer and iONTRON BSA alongside the hybrid BSF.

## The iONTRON family

Almost one year after the market launch, we have successfully introduced several machines in more than 10 different countries across two continents. Putzmeister is aware that the construction industry is responsible for around 30% of global CO2 emissions. This is why sustainability is one of the top objectives in our newly developed corporate strategy. We want to contribute to CO2 neutrality and position ourselves as no. 1 in the electrified concrete value chain. To achieve



When they stand close to the machine then they see that it's clean, it's quiet and this and that. I think that is really the future.

this, our goal is to electrify our entire portfolio of concrete products – including BSF, BSA, truck mixers and more – for construction sites all over the world. >>





### What's next for the iONTRON machines?

After successful sales in various markets, and as the sole provider of groundbreaking technology produced as standard, our global team is working hard to revolutionise the sector, increase sales, and benefit from the dynamism within the industry. The goal is to make the iONTRON product family even more successful, and to remain at the top of the electrified concrete product value chain. At the same time, we are moving one step closer our company's vision to make housing and infrastructure affordable and sustainable!



The electric pumping worked seamlessly and we have been very satisfied.



Mostly I was surprised by the 63 Amp because the output is really good.

It feels very nice and the pump is working perfect, the pumping smooth.

The vision of Swerock is that we should be the leading company about environment, health and nature and take care. Take our little piece to make a better future for our kids and grandkids.



# iONTRON



MORE INFORMATION



MORE ON YOUTUBE





QUIETLY ACROSS CITY, COUNTRY AND HIGHWAY:

# PUTZMEISTER STARTS ITS NATIONWIDE TOUR OF GERMANY WITH THE IONTRON eMIXER

The white Putzmeister truck mixer moves almost silently through the centre of Darmstadt. To the left and right of the main street are tall residential buildings, hotels and commercial buildings. Tens of thousands of cars a day, plus noise from construction sites and public transport, create a highly stressful acoustic level for residents. A 32-tonne diesel truck mixer navigating through the city centre would only add to that stress. But this time everything is different: the Putzmeister iONTRON is understated and reserved. Truck driver Valentin Kiefel has been transporting concrete for 15 years, and this is a new experience for him: “The vehicle is so quiet, it’s unbelievable. I can hear the tyres on the tarmac. Even the cars alongside me at the traffic lights make more noise. See, I have the radio turned down very low, but I can still hear the music.”

The driving performance was also a pleasant surprise, explains Valentin Kiefel: “The power is unbelievable. I don’t feel any difference, whether I’m driving off with an empty truck or a full load of concrete. The electric drive is incredibly powerful.” The acceleration, at the lights, for example, or after a roundabout, is actually comparable to a car – none of the usual jerky acceleration you get when shifting the transmission and pulling away. The driver comfort is a surprise to every truck driver.

The Putzmeister iONTRON approaches the construction site. You can hear children in the playground. Some older ladies are chatting right next to the construction fence. And there is no noise at all. Only a quiet whirring noise gives away the fact that new technology is on its way here. And, of course, the decals on the rear and side – “100% electric” – clearly indicate the Putzmeister P9G truck mixer’s eco-friendly credentials while on the road in Germany. >>

# iONTRON







Since May 2023, Putzmeister has been taking the eMixer on a Europe-wide tour. It started in southern Germany: From Aichtal via Mannheim to Frankfurt, past the A7 motorway and on to Erfurt, followed by Sauerland, Ostwestfalen and Rheinland... The goal is to inspire confidence in the machine, showing how brilliantly, and quietly, it runs!

### Not a prototype, but a sophisticated construction site truck

The wheel formula is quite conventional: 8x4 with two steering axles at the front and two driven rear axles. The P9G truck mixer superstructure is 100% Made in Germany – it is assembled at the Putzmeister plant in Aichtal. With a nominal volume of 9 m<sup>3</sup> and water volume of 10.2 m<sup>3</sup>, the drum capacity corresponds exactly to a standard diesel truck mixer. Due to legal requirements, the iONTRON can carry around 17 tons. Therefore, the real transport capacity is around 7 m<sup>3</sup> of concrete.

The SY408P type chassis is produced by Putzmeister's parent company SANY, the third-largest construction equipment manufacturer in the world. The energy is

stored in ten battery packs, each of which is 35 kWh, well ventilated, and protected in a separate housing behind the driver's cab. The on-board voltage is 600 volts, and the battery capacity is 350 kWh. This corresponds approximately to the calorific value of 36 litres of diesel. And the range?

Driver Valentin Kiefel gives an initial report after four trips carrying concrete to the centre of Darmstadt: "Normally, a truck mixer uses 45 to 50 litres of diesel per 100 kilometres. In the new truck, consumption is shown on the driver's screen: We've used 171 kilowatt hours today, having driven 110 kilometres and delivered 25 cubic metres of concrete. That's unbelievable – no diesel mixer can manage that." As a comparison: 171 kWh corresponds to a calorific value of just under 18 litres of diesel.

Because of the recuperation, braking is rarely necessary. Valentin prefers to drive in level 1 or 2, but up to five levels are possible. When approaching roundabouts or red lights, it is enough to release the accelerator pedal – the truck "brakes" harmoniously and the battery is simultaneously recharged. One circular system. Driving is sophisticated, quiet, enjoyable. >>







The outside temperature is around 18 to 20 °C. There is no rain. No charging operation is needed between two trips: The eMixer returns to the mixing plant with exactly 51% remaining of its full charge, after driving 110 kilometres. Valentin Kiefel: "The mixer could have easily made another one or two trips today, but there was no need for it today."

To compare: The day before, when travelling on the motorway from Aichtal (south of Stuttgart) to Gernsheim, the mixer had a battery capacity of 46% after travelling around 180 kilometres. If you drive cautiously and the route is clear, it is possible to travel over 300 km unladen.

Kevin Eichele is responsible for the market launch of the all-electric mixer at Putzmeister. He underlines: "The maximum mileage depends on the outside temperature, the gradient, the driving style, and the type of construction site. For unladen journeys, we have calculated a maximum range of over 300 kilometres, without any charging en route. On the job, it's actually more like 150 kilometres per day. We will demonstrate these values in real use in the coming weeks."

The charging operation is another aspect which is completely clean: After cleaning and spraying off the concrete residue, the eMixer moves almost silently to the mobile charging station. The charging port is located directly under the driver's cab, protected by a black flap. Valentin Kiefel climbs out of the cab, moves the start button from 0 to 1, waits briefly for the signal, and then plugs the CCS2 connector into one of the two charging sockets underneath the battery. The mobile charging station draws its power via a 63 A connector that is connected to the transformer station located there. Provided the network allows higher performance, the truck can also be charged with two connectors.

### TECHNICAL DATA

#### 100 % electric

Driving	8x4 SANY 408P electric truck
Mixing	P 9 G iONTRON electric truck superstructure

#### 100% environmentally friendly

CO <sub>2</sub> emissions	down to zero*
Noise emissions	significantly reduced
Fuel consumption	zero litres of diesel
Electric chassis consumption while driving (unladen)	120 kWh/100 km

#### 100% practicable

Working range <sup>2</sup>	350 kWh – approx. 8 hours of operation in inner-city areas
Fill level and additional load	9 m <sup>3</sup> nominal fill level, comparable with a conventional mixer
Battery charging	standard CCS Combo2 (up to 250 kW)
Permissible gross weight <sup>1</sup>	32 t

#### Drive

Electric motor	permanent magnet synchronous motor (PMSM)
Rated voltage	600 V
Rated output / rpm / torque	250 kW (340 PS) / 1800 U/min / 1330 Nm
Max. output / rpm / torque	250 kW (340 PS) / 1800 rpm / 1330 Nm

#### Battery

Manufactured by	CATL
Type	LFP (lithium ferrophosphate)
Storage capacity	604 Ah, 350 kWh
Charging	CCS Combo2 (250 kW off-board)

\* Depending on local electricity mix

<sup>1</sup> National exceptions possible (up to 34 t)

<sup>2</sup> Depends on external factors such as additional load, driving behaviour, weather, etc.

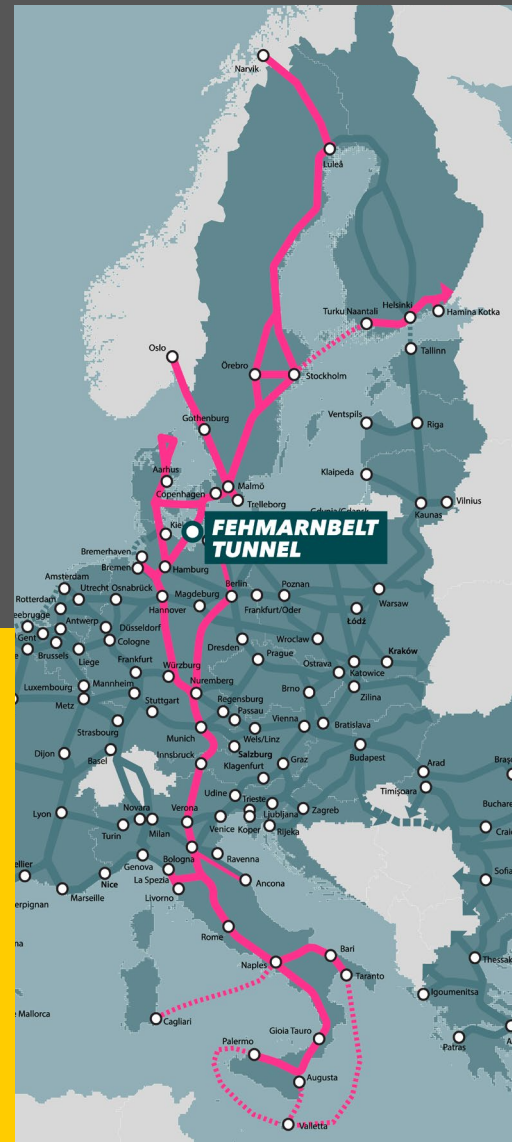


MORE INFORMATION





# THE FEHMARNBELT TUNNEL – LINKING SCANDINAVIA TO CENTRAL EUROPE



The project to construct the Fehmarnbelt tunnel is an important step in the expansion of the European transport network, as it will connect Scandinavia to Central Europe. When completed, the travel time between Hamburg and Copenhagen will be reduced from 4.5 to 2.5 hours, along with a corresponding reduction in CO<sub>2</sub> emissions from vehicles.

An 18 km long immersed tunnel with two tubes for the four-lane motorway and two tubes the double-track railway form the heart of this connection.

## Putzmeister’s involvement

During the conceptual planning phase for the project, concreting using pumps and concrete placement using placing booms were identified as the best methods for producing the tunnel elements. After over 10 years of consultancy and supporting project sales, in August 2021, Putzmeister won the contract to supply the concreting equipment, as the overall package offered was evaluated as being the best technical solution for the task. The scope of supply ordered consists of 16 BSA stationary concrete pumps, 30 stationary MX placing booms, 40 RV and SV rotary and swivelling distributors, and more than 13 km of delivery lines, with total sales running into the double-digit million range.

## Project schedule

While the first ground was broken in Denmark in 2020, construction work began in Germany in 2021. The tun-

nel is projected to open to public transport in 2029. In October 2021, Putzmeister began delivery of the concreting equipment for the first site trial concreting (FSTC). The order consists of seven lots; the last lot was delivered in early 2023.

## Production process

The complete immersed tunnel is formed of 79 standard and 10 special tunnel elements. Each standard element is 217 m long and 41 m wide and consists of nine tunnel segments. Because the high quality standards require a controlled production process, the tunnel elements were manufactured in three large controlled-environment production halls. The enormous amount of 2.5 m<sup>3</sup> of special concrete is transported into the tunnel formwork using Putzmeister concreting equipment. >>>





When concreting a tunnel segment, up to six placing booms are used at the same time. Each placing boom is fed from a stationary concrete pump which is located directly underneath a concrete mixing plant and connected with a pipeline up to 400 m in length. While the placing boom is pouring the concrete into the formwork from above, Putzmeister rotary and swivelling distributors installed in the formwork are used to place the concrete at the bottom of the segment.

After a tunnel element has been produced, the floating tunnel elements are towed out to sea by tugboats from the working harbour, lowered, and moved into position.

### Project progress and milestones

After sales activities and feasibility studies began in 2010, the tendering process was opened at the end of 2020, for which Putzmeister submitted a detailed tender.

After successfully completing an intensive contract negotiation process, which involved the experts in project management from all Putzmeister departments, a supply agreement was concluded in August 2021.

Immediately after the start of the project, project-specific planning and material procurement began to ensure timely delivery to the construction site for the first site trial concreting (mock-up), which was initially scheduled for October 2021. Subsequent deliveries were made in six lots until the end of Q1/2023.

The Putzmeister machine concept proved successful in the two mock-ups. There, full-size tunnel segments were concreted on a test site in the production plant, to test the processes and to be able to evaluate the quality of the finished component. Production has just started for the first complete tunnel element. >>



Concreting a tunnel segment with two BSA 2108 HP E stationary concrete pumps and MXR 32-4 placing booms





### Benefits for the Putzmeister Group

For Putzmeister, the Fehmarnbelt tunnel project is the largest individual project in the company's history, in terms of sales, the number of machines sold, and the contribution to the company's success. Additional sales are expected as the project progresses, with Putzmeister original spare and wear parts and qualified services.

The project represents an important benchmark in the area of large construction sites, precast construction and infrastructure projects and is therefore sure to raise Putzmeister's profile. At the same time, it demonstrates the confidence the industry has in the Putzmeister brand and its quality. Through close collaboration throughout the entire project period, Putzmeister is benefiting from the knowledge and experience gained. Last but not least, this project promotes and strengthens both cross-company and cross-departmental collaboration.

### Conclusion

The successful progress of the project demonstrates that Putzmeister can manage complex projects through the use of qualified, professional project and commercial contract managers, using professional project management methods, including reporting tools, risk assessment, and risk, cost, time, and quality management. Putzmeister has demonstrated its understanding and its ability to adapt to the requirements of the market and to specific needs in order to successfully achieve the project goal together with the customer.

While the future tunnel will be operated and maintained by Femern A/S, a company owned by the Danish government, the contract for the construction of the tunnel was awarded to the Femern Link Contractors (FLC) consortium, made up of the major European construction companies Aarsleff (Denmark), Vinci, Soletanche Bachy (France), Max Bögl, BAM Infra, BAM International, Wayss & Freytag (Germany), Dredging International and CFE Group (Belgium).

The project is financed by the Danish government and co-financed by the EU's Connecting Europe Facility programme. The total budget for the Fehmarnbelt crossing is 7.1 billion euros.



Pouring the bottom of the tunnel with the SV 7-3 swivelling distributor



Lowering and connecting the tunnel elements



# IMPRESSIVE PEAK PERFORMANCE: ERGONIC 3, iSC AND iBC

**Customers are benefiting from Putzmeister’s innovations, with a number of machines featuring the latest technologies – Ergonic 3 with iSC and iBC – out operating in the field. Initial feedback reports impressive results. The customers are excited about the possibilities that these cutting-edge systems offer, and have already given plenty of positive feedback.**

During training for the new Ergonic 3 control system, the iSC support monitoring, and the iBC assistance system for convenient operation of the placing boom, customers were able to experience first-hand what the machines

could do. The reactions were overwhelmingly positive, and some expressed amazement at how the machines were able to handle tasks with very narrow support configurations that they would never have imagined possible with their old machines.

**“Putzmeister is currently building the best machines on the market by far.”**

In the feedback from customers, such as from Robert Aebi in Switzerland, there was high praise for the Ergonic 3, iSC and iBC. The emphasis is on easy operation and quick learning, which enables customers to use it reliably.



ergonic<sup>®</sup> 3  
inside 3





Adolf Birsner is another customer won over by Putzmeister machines, not least because of the presentation of information on the displays of the new models

Another aspect that was particularly well-received is the improved fault management system. The system enables a significantly better overview of the machine's current operating state and helps to quickly identify and resolve problems.

The customers appreciate the increased transparency and improved understanding of the machine's operation, resulting in a more efficient and smoother method of operation.

The consistently positive responses received bolsters Putzmeister in its efforts to continuously improve and optimise the machine systems, in a similar manner to that already successfully achieved with the Ergonic 2. With the launch of Ergonic 3, iSC and iBC, Putzmeister is once again setting standards in the industry and demonstrating that it can offer its customers the best possible solutions for their demanding requirements.



ergonic<sup>®</sup>  
inside 3



# CHALLENGES AND SUCCESS IN RENOVATING THE BALCONY ON A 15-STORY RESIDENTIAL BUILDING IN DRESDEN

**The renovation of the balcony on a 15-story residential building in Dresden provided the company performing the work, Dietze Hochbau GmbH from Wurzen, with several challenges.**

The summer heat hung over Dresden when they started the construction project in mid-June. This project consisted of renovating the balcony covering on all 15 floors of the occupied apartment building.

The balconies were small, just 8 m<sup>2</sup>, which meant that freedom of movement was severely restricted. The workmen had to proceed with great care in order to achieve the best outcome in this limited space. But there was another challenge: The screed used for balcony renovation was mixed with a particular concrete additive to make it especially strong. This composition made the mortar relatively dry, and therefore difficult to pump.

The EstrichBoy DC 450 BS from 2018 was used to carry out the balcony renovation. To reach the balconies, which were up to 45 m high, a mortar hose with an internal diameter of 50 mm and length of no less than 60 m was used. The hose was laid on the outside of the scaffolding, and the façade had to be protected. Special care had to be taken to ensure pumping was smooth and consistent, without the hose snaking.

Performing the renovation at an outside temperature of 30 °C increased the customer's concern. There was a possibility that the drier mix of the pumped material could cause problems. Therefore, an outside elevator was available as a backup, to transport the mortar manually upwards should a problem occur during pumping.

Despite the initial concerns, pumping of the screed to the 15th floor went smoothly. The EstrichBoy proved effective and mastered the task powerfully, yet calmly and evenly. The results speak for themselves – the balcony renovation was a success.







PROJECTS IN THE MIDDLE EAST

# SOBHA HARTLAND PROJECT IN DUBAI

The Dubai skyline is famed for its very tall, innovative buildings. And the Sobha Hartland project is no exception. This sprawling eight million square foot mixed-use project is strategically located at the crossroads of the Ras Al Khor Road (E44) and the Dubai-Ai Ain Road (E66), just three kilometres from the iconic Burj Khalifa. The project aims to redefine luxurious living, and seamlessly merge modernity with nature.

At the centre of the construction process are the five Putzmeister Mixokret M 760 DHBs. These machines, known for their versatility and reliability, ensure that the traditional earth-moist screed is laid with precision and speed, without interfering with the stringent quality standards applicable to the project.



What differentiates Sobha Hartland from other projects is its commitment to green living.

The settlement is set in 22 hectares of lush greenery, planted with over 300 species of carefully selected plants and trees. These green areas, which make up 30% of the total project, underscore the commitment of Sobha Hartland to create a sustainable and harmonious environment for its inhabitants.



Project photo after completion



PROJECTS IN THE MIDDLE EAST

# THE MATAF EXPANSION IN MECCA

The holy city of Mecca in the heart of Saudi Arabia is of key importance to Muslims across the entire globe. Each year, millions of the faithful make the Hajj pilgrimage to the Kaaba building, Islam's holiest site. To support the growing number of believers and to provide them with a safe environment, the Mataf expansion project was initiated.

**This expansion will increase the capacity by an incredible 160 percent to accommodate up to 128,000 visitors per hour – an enormous undertaking, which underscores Saudi Arabia's commitment to ensuring the comfort and safety of the pilgrims during their holy journey.**

At the core of this project is the use of cutting-edge technology, including the innovative Putzmeister S 5 EVTM worm pump, to carry out a crucial part of the project: The structural strengthening through injection of flowable microconcrete.

Three Putzmeister S 5 EVTM mortar machines have been seamlessly integrated into the Mataf expansion project. Their role is clear: Structural reinforcement by precisely injecting flowable microconcrete. The complexity of the project required innovative solutions to allow hard-to-reach areas to be accessed and reinforced. To overcome this challenge, encasing technology was used. Encasing enabled the flowable microconcrete to be pumped effectively into these hard-to-reach areas, ensuring the reinforcement work was both comprehensive and thorough.







## THE GROWING SOUTH SOUND REGION RELIES ON PUTZMEISTER EQUIPMENT

# PUTZMEISTER PUMPS KEEP TWO WAREHOUSES IN PUYALLUP, LOCATED IN WASHINGTON STATE, ON TRACK

The project includes two ground-level tilt-up concrete storage buildings, one with 10,405 m<sup>2</sup> of floor space and one with 14,865 m<sup>2</sup>, as well as two rainwater retention basins, each approximately 91 m long and 24 m wide. The first ground was broken in August 2022, and completion is scheduled for October 2023, with a total expected cost of \$25 million.



The 63RZ is placed in the narrow space between a retention basin and the construction site to concrete tilting wall panels.

In two to three weekdays, working eight hours per day, the team concreted about 550 m each shift. Because of the wet weather in the Pacific Northwest, the work often could not be carried out according to a set schedule, so long hours were often worked on dry days to maximise the pump capacity. To ensure work ran smoothly, the construction site relied on several Putzmeister truck-mounted concrete pumps, in particular the 63Z-Meter truck-mounted concrete pump.

Cory Bone from Brundage-Bone Concrete Pumping opted for Putzmeister equipment because of its reliability and functionality. He chose the 63Z-Meter because of its excellent horizontal reach and manoeuvrability. The versatile five-arm boom with RZ folding system has a vertical reach of more than 62 m and also boasts a small turning radius, essential in the confined spaces in which Bone and his team work.

Bone said that it was crucial to stick to the schedule regardless of the weather – particularly during the Pacific Northwest's rainy winter months – and that the reliability of the Putzmeister equipment was a crucial factor in the project's success.

“This type of construction is very fast-paced and the schedule is quite aggressive. On fine days, we pour plates and try to put up buildings as quickly as possible. With Putzmeister equipment, we are able to pour the concrete quickly and safely to the satisfaction of the construction company,” Bone stated. >>





Due to the cramped conditions on the construction site, the team use a pump-to-pump arrangement, with one 63RZ pumping into a second 63RZ. This increased the reach over the retention basins at the foot of the construction site, allowing them to place concrete as close to the building as possible. And the truck mixers did not have to drive onto the prepared construction site.

In addition to this ambitious pumping schedule, the logistics of the construction site presented some challenges. Due to the two rainwater retention basins that border the buildings, it was not possible to manoeuvre around the base of the buildings to pour the concrete effectively. The team also had to avoid driving heavy equipment onto the site's prepared ground.

"We try to avoid driving truck mixers onto the construction site because it rains a lot here. A construction site can get messed up pretty quickly if you have a bunch of trucks driving around on it," explained Bone. "Because we're so heavy, we also couldn't get close to the buildings because of the water retention basins."

To overcome these challenges, Bone employed a fleet of Putzmeister machines on the construction site. He relied on a pump-to-pump arrangement, using a 63Z truck-mounted concrete pump to pump into a second 63Z, which increased their reach and allowed them to pour concrete as close to the building as possible. This meant that the truck mixers did not have to drive onto the construction site. In addition, plates were placed underneath all booms that were 50 metres or longer, to distribute the weight and improve stability and security.

"We opted for Putzmeister because this allows us to set up in tighter places and still have the reach of larger booms. The pumps' front support was a key factor in our successful completion of this project. We can place them in a 9-metre-wide area and have 180-degree access around them. This allows us to put up a bunch of booms in a tricky situation where we have limited space. This meant we had no downtime for the construction company," said Bone.

The concrete mix presented a particular challenge. The construction required a low-shrinkage mix which consists of a high proportion of aggregate and less water than the standard mix. This type of concrete can help prevent cracks and gaps when the plates are inserted into the structure, but can also make it harder to pump the concrete. Blockages can form and have catastrophic consequences further down the line. Of course, the Putzmeister machines were up to the challenge. >>



“The low-shrinkage mix contains less water and more aggregate, making it slightly harder to pump. But we had no issues pumping it through with the Putzmeister machines,” said Bone.

“We opted for Putzmeister, because we really value the reliability their machines offer, and their ability to pump large quantities of concrete very quickly. We get really good delivery rates from them, and we are able to make some of these harder mixtures with it too.”

Andrew Gough, construction manager at Pennon Construction, agreed that the Putzmeister equipment was essential for working with this low-shrinkage mix effectively. “This concrete mix was pumped through the Putzmeister pump really well. We were able to achieve a slump flow of 127 mm, and the pumps ran brilliantly,” he stated.

Gough also praised the Putzmeister equipment, which helped keep the entire project on track despite all the challenges related to weather, the mix, and the construction site.



The 63RZ-Meter pump concretes the base plate.

“They have proven to be extremely reliable pumps on this and other projects,” he said. “We achieved a good, even flow without any jerking or boom vibrations, even when the booms were fully extended. This helped ensure the project ran smoothly.”

**The city of Puyallup lies at the foot of the majestic Mount Rainier, in the stunning Puget Sound region of Washington state. Located just 35 miles south of Seattle on the I-5, this growing city boasts a healthy economy and a business-friendly culture which attracts various companies of all sizes.**

**Since the “Great Resignation” which followed the COVID pandemic, new companies have emerged throughout the region. In 2021, 1263 new business licenses were granted in Puyallup, compared to 2019 when the city issued only 306 new business licenses. As more businesses and residents choose to live and work in Puyallup, there is also strong pressure to meet the growing demand for warehouse space along the I-5 corridor. A lot of businesses are attracted to the South Sound district due to the availability of land, low rents and easy access to the I-5, plus its proximity to Portland and Seattle.**

**The Canyon Road A&B project in Puyallup should help manage the influx of companies. The future industrial area close to the Port of Tacoma offers quick access to the I-5, which will help future tenants serve the needs of the Puget Sound region as well as the entire Pacific Northwest.**

**Property developer:** Trammell Crow Company and  
CBRE Investment Management

**General contractor:** Pennon Construction

**Concrete placement:** Steckler Construction – Marysville, Washington and  
K Kenny Construction – Gig Harbor, Washington

**Concrete pump service provider:** Brundage-Bone Concrete Pumping

**Ready-mixed concrete supplier:** Corliss Resources

**Equipment:** Putzmeister 38RZ-5-, 47RZ, 61, 63RZ truck-mounted  
concrete pumps





GERMAN GULF ENTERPRISES

# NEW STANDARDS IN CONCRETE PLACING TECHNOLOGY

**German Gulf Enterprises delivers advanced Putzmeister BSF 42-5 pumps to leading construction companies in the UAE.**

In the world of construction and infrastructure development, timely and efficient delivery of materials is crucial. When it comes to concrete placement, precision and speed are of the utmost importance. Recently, Putzmeister dealer German Gulf Enterprises delivered two state-of-the-art Putzmeister BSF 42-5 concrete pumps to M/s Jamix in Sharjah and M/s CK BETON in Abu Dhabi.

The Putzmeister BSF 42-5 concrete pump is equipped with the very latest technology to enable highly precise concrete placement. The smart control system and the hydraulic components make it possible for machine operators to control and stop the pumping process with exceptional accuracy. This precision ensures that the concrete is distributed exactly where it is needed. This reduces waste and optimises the use of material. In addition, these pumps are extremely versatile and can handle different types of concrete mix. Whether high-strength concrete, lightweight cellular concrete, or self-compacting concrete, Putzmeister pumps are flexible and can be adapted to the varying requirements of building projects.

All new pumps are equipped with the latest Ergonic 3 control system from Putzmeister that is setting new benchmarks in the concrete industry and reducing the machines' downtime to a minimum with its advanced fault management system.

**JAMIX** was founded in 1989 and is a locally owned company which has been a leading concrete supplier in the northern Emirates for 30 years. The company has earned a good reputation for providing quality services based on a solid foundation of respect, customer satisfaction, competence, and continuous improvement. The most recent purchase of the Putzmeister BSF 42-5 is proof of the customer's continued confidence in GGE & Putzmeister, having already acquired our state-of-the-art BSF 56-5 in 2020 to expand its fleet in the 50-metre class.



**CK Beton Cement Industries LLC** started operations in 2008 with two fully computer-controlled concrete mixing plants in Mussafah Abu Dhabi, and is now one of the leading producers in the Abu Dhabi region. With the best and most efficient facilities, processes, and employees, CK Beton Cement Industries LLC has achieved its goals and gained a large market share of the competitive ready-mixed concrete industry in a short period of time. CK Beton has expanded its fleet in the last 5 years by purchasing six Putzmeister BSF 42-5 machines, underlining the excellent support from GGE and Putzmeister.





**BUILDING ONE OF THE LONGEST BRIDGES IN SOUTH AFRICA**

# MSIKABA BRIDGE PROJECT

The Msikaba bridge is a cable-stayed steel deck bridge currently under construction, spanning the Msikaba River, near Lusikisiki in the Eastern Cape of South Africa. The Msikaba bridge is part of the N2 Wild Coast (N2WC) road-building project, which aims to improve the travel time between Durban and East London for light and heavy freight.

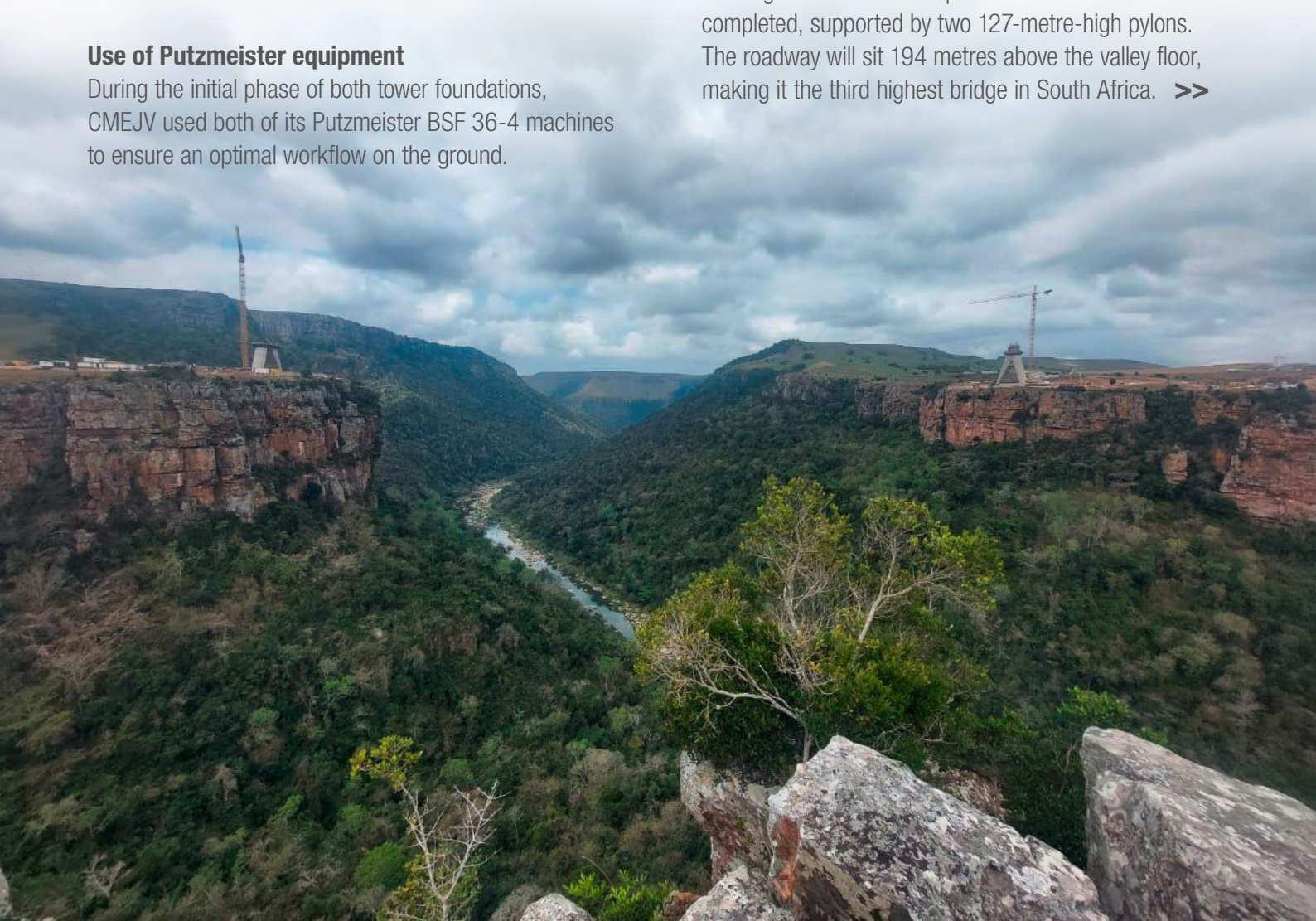
### Use of Putzmeister equipment

During the initial phase of both tower foundations, CMEJV used both of its Putzmeister BSF 36-4 machines to ensure an optimal workflow on the ground.

Once the 30-metre mark was reached, the Putzmeister BSA 1409D stationary pumps were called in to help to transport the concrete to a height of around 125 m, pumping it horizontally from side to side. When the horizontal roadway is complete, one of the Putzmeister RV 12 rotary distributors can be used for easy placement of the concrete.

### Bridge planning

The bridge designed by the Danish company Dissing + Weitling will have a main span of 580 metres once completed, supported by two 127-metre-high pylons. The roadway will sit 194 metres above the valley floor, making it the third highest bridge in South Africa. >>







### Contract award

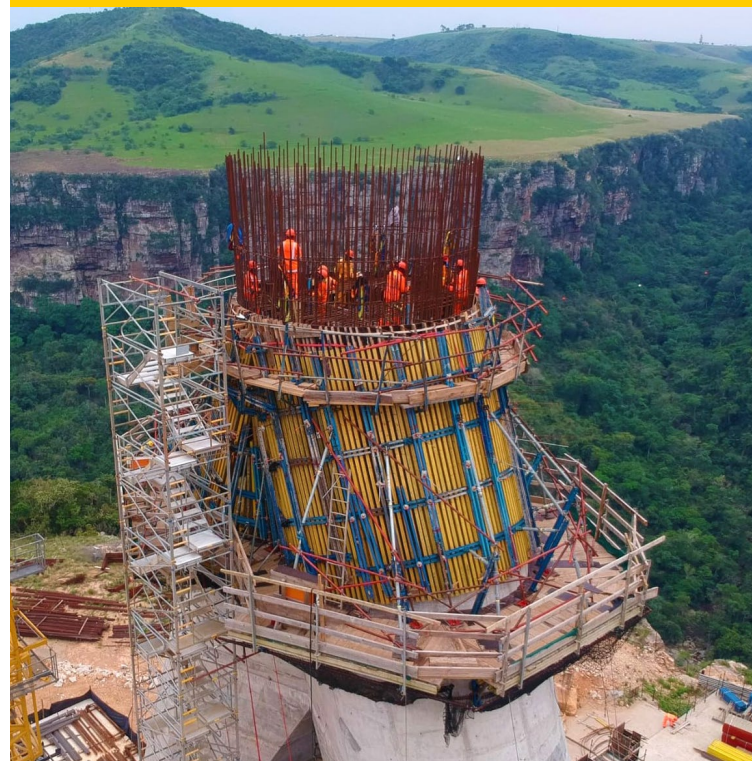
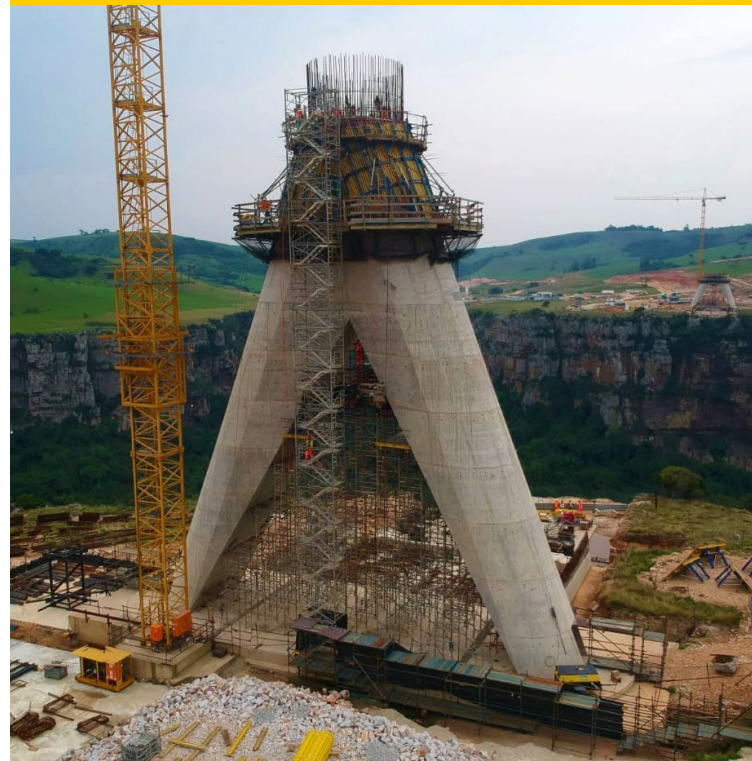
In 2017, the South African roads authority awarded the contact for building the bridge to the Concor-Mota-Engil Joint Venture (CMEJV), formed of the South African construction company Concor and the Portuguese construction company Mota-Engil. The contract is worth \$118 million.

### Information on the project

An estimated 56,000 m<sup>3</sup> of concrete will be needed, which is supplied by on-site mixing plants owned by the joint venture approximately 3 km from each end of the bridge. During construction, 29,700 tons of structural steel and 1100 tons of cabling will be used. The remaining work included in the contract covers the construction of 1.5 km of access roads on both sides of the bridge. This includes 650,000 m<sup>3</sup> of earthworks, 430,000 m<sup>3</sup> of which consists of hard rock. The conventional three-span bridge will have four culverts made of cast-in-place concrete crossing some of the tributaries. A temporary cable car system will reduce the travel time between opposite sides of the bridge during construction.

The bridge, which will be one of the longest in Africa, is part of the N2 project. According to the Minister of Transport Fikile Mbalula, the project is consistent with the new plan for economic reconstruction and economic recovery that continues to create thousands of new jobs and economic opportunities.

After significant delays, including a protracted labour dispute, the expected completion date for the project was set as the end of 2025 or early 2026. The N2 Wild Coast Road, which runs over 410 km from the Gonubie crossing in East London to the Mtamvuna River north of Port Edward, will shorten the current route by 85 kilometres.



### Putzmeister equipment used

- BSA 1409 D stationary pumps
- BSF 36-4 truck-mounted concrete pumps
- SK pipeline/ZX pipeline





# BSA STATIONARY PUMPS AT MINING PROJECTS IN ZIMBABWE

## The projects

In the next two to three years, several projects are planned in a number of mines in Zimbabwe. The projects include 2700 m<sup>3</sup> of reinforced concrete for an access road to a hydroelectric power plant, and 1200 m<sup>3</sup> of reinforced concrete for mining infrastructure, planned for a period of six months. Also planned is ground gypsum infrastructure for mining covering 6000 m<sup>3</sup>, which will be operated by the plant's technical team.

A system known as Hyson Cells will be used for this. This Hyson Cell system comprises a huge matrix of interconnected thin-walled hollow cells, which are made by joining strips of plastic film together. >>



## Putzmeister equipment used on these construction sites:

- 2 x BSA 1005 D stationary concrete pumps
- 1 x RV 12-Lift rotary distributor
- SK pipeline





### Use of Putzmeister equipment

The construction site in Bulawayo is supplied by the Putzmeister BSA 1005 D stationary concrete pump via a single SK pipeline 100 metres in length. The concrete for the base plate is placed using a RV 12 rotary distributor. The second BSA 1005 D is on standby as a reserve pump, as the amount of concrete required was around 50 m<sup>3</sup> per hour, with a total volume of 10,000 m<sup>3</sup>.

Plant Technical Services purchased various Putzmeister machines and additional devices for the use of JRG in various projects in Zimbabwe

### Customer profile:

Johannesburg-based company Plant Technical Services (PTS) focuses primarily on providing procurement and logistics services to projects and operations in the mining, construction, agriculture and hospitality sectors. In the last year, Plant Technical Services has handled various construction sites, including 8000 m<sup>3</sup> of reinforced concrete over nine months for mining infrastructure.





# THE SCAL ENVIRONMENT, HEALTH AND SAFETY CAMPAIGN 2023

On 7th July 2023, the Singapore Contractors Association Ltd (SCAL) organised their annual Environment, Health and Safety Campaign, where industry leaders, key figures and stakeholders come together to highlight the importance of safety on construction sites. Putzmeister South-East Asia CT Pte Ltd participated as an event sponsor, helping to ensure the campaign was a success.

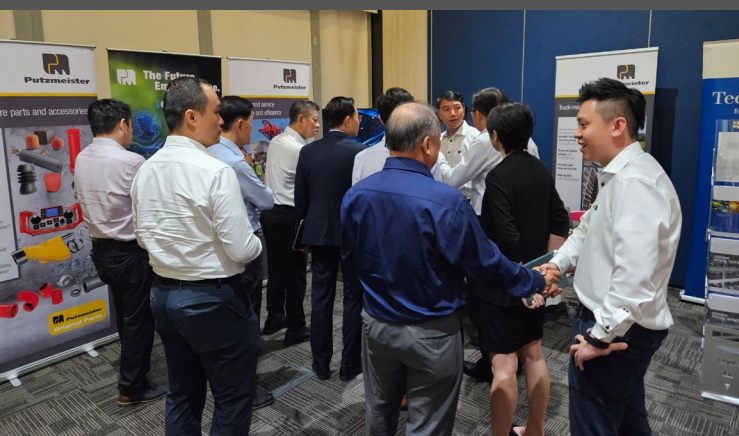
The event began with speeches from SCAL President Lee Kay Chai, and Senior Minister of State Zaqy Mohamad. Both speakers highlighted the crucial role that safety plays in the construction industry, and underscored the need for collective efforts to create a safe work environment.

Putzmeister South-East Asia CT Pte Ltd was there to interact with participants by setting up an information booth displaying some of their products. This platform allowed them to demonstrate their commitment to safety and the innovative solutions that they offer to reduce hazards in the workplace.



During the networking session, there was great interest in Putzmeister products. This was used as an opportunity to hold key discussions on the importance of training operators on how to reduce safety risks. Putzmeister South-East Asia CT Pte Ltd advocates for proper training and adherence to safety protocols for increased safety awareness in the construction industry.

The event provided an excellent platform for SCAL members, industry stakeholders, and supporters to come together, share knowledge, and reinforce the importance of safety in the workplace.







**IN THE MIDDLE OF THE YEAR,  
PUTZMEISTER UNDERWENT A  
REALIGNMENT, AND UNVEILED  
A NEW STRATEGY**

### **OUR VISION**

“A world where housing and infrastructure are affordable and sustainable.”

### **OUR MISSION**

“To build a passionate global team that creates exceptional customer experiences, helping our partners grow their business by designing housing and infrastructure with the safest, most productive and most sustainable solutions.”

Values such as openness, honesty, trust, respect and an open learning culture are important to us. Why? Because they are the foundation of our success.

They give us orientation and make cooperation within the teams and with each other more productive and increase satisfaction for everyone. It creates trust amongst the Putzmeister family and our business partners, for whom our conduct and attitude are concrete, understandable and noticeable.



**MORE INFORMATION**

### **FOLLOW US**



PUTZMEISTER HOLDING GMBH

TEL. +49 (7127) 599-0

FAX +49 (7127) 599-520

WWW.PUTZMEISTER.COM