



Putzmeister

post



Large concrete
placement at giant
hospital in Montreal

Putzmeister
Office Iraq

Truck mixer with
360° camera system

Stationary
concrete pumps
in St. Petersburg:
Construction of
the Western High
Speed Diameter

Title story: Concreting pylons

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Chinese Governor
visits Putzmeister



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Shotcreting in
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High-ranking visit from China to Putzmeister in Aichtal

On Wednesday, 7 October 2015, the Chairman of the Board of Management of the Sany Group, Mr Wengen Liang, received the Governor of the Chinese province of Hunan and his high-ranking delegation for business talks at the Putzmeister headquarters in Aichtal.

Dr. Gerald Karch, CEO of the Putzmeister Group, welcomed the guests from China to the Putzmeister factory. During a walking tour of the site in Aichtal, the Governor Mr Du and his delegation of experts saw for themselves the efficiency of the premium brand manufacturer Putzmeister, which is successfully managed as an independent division of the Sany corporation.

There was an intensive exchange of ideas and opinions on economic developments between the members of the Chinese delegation and the Management of Putzmeister. Impressed by the competence of Putzmeister and delighted with the cordial meetings, the Governor conveyed greetings from the 70 million citizens of Hunan. Hunan is an economically strong province in China and home to the Sany Corporation. ■



◀ Mr. Du, Governor of the province Hunan, Dr. Karch, CEO of Putzmeister Group, Mr Liang, Chairman of the Board of Management at Sany (from left to right)

▼ The Chinese delegation at the factory walking tour in Aichtal



➔ Hunan Province

Hunan Province in southern China is situated just a few hundred kilometres north of Hong Kong. In terms of area, Hunan is almost as big as Great Britain and has a population of approximately 70 million.

Hunan has a wealth of natural resources and ranks among China's most important agricultural regions. The production of rice, tea and cotton plays a key role here.

Hunan is among China's ten economically strongest provinces. In order to further promote economic growth, financial resources have been generated and released for various industrial sectors and large-scale projects. Hunan is known for the following sectors: tobacco, steel, electricity, chemicals, non-ferrous metals, building materials, transport equipment, agriculture and crude oil. The products generated by these sectors are considered best-selling items on the market and are substantially increasing the export quota.

Situated in the northern part of Hunan on the Xiang river is the up-and-coming busy metropolis of Changsha – provincial capital and home of the Sany Group. Over seven million people live in the administrative district of Changsha alone.

Steeped in 3,500 years of history, the provincial capital is an important cultural centre. Shaoshan, very close by, was the birthplace of Mao Zedong. During his student days in Changsha, he turned to communist ideology.



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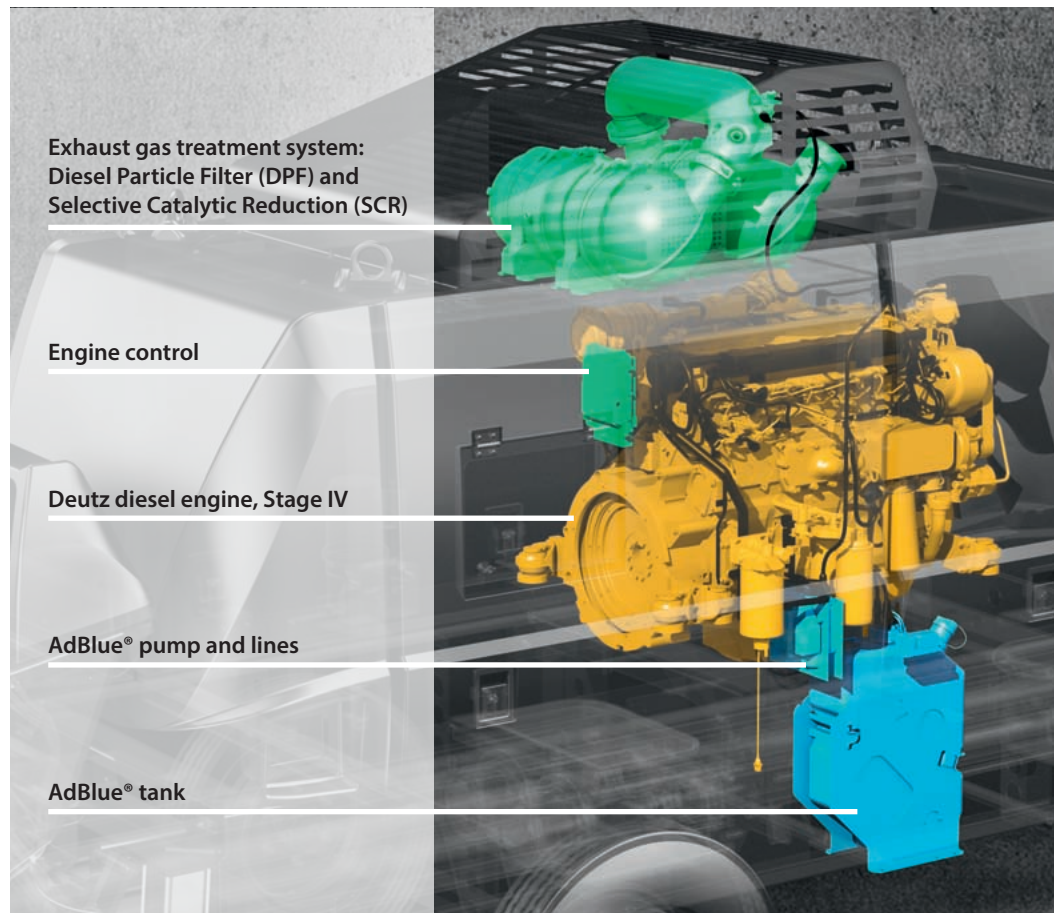
The new stationary concrete pumps BSA D4 – low emission thanks to Stage IV diesel engines

Stage IV or Tier 4 final for mobile construction machinery, including stationary concrete pumps, came into force in Europe and the USA on 1st January 2014. New mobile construction machinery operated in the corresponding countries must now meet the new restrictions specified for Stage IV, so that it will be possible to operate these machines in sensitive areas such as inner cities or conservation zones in the future.



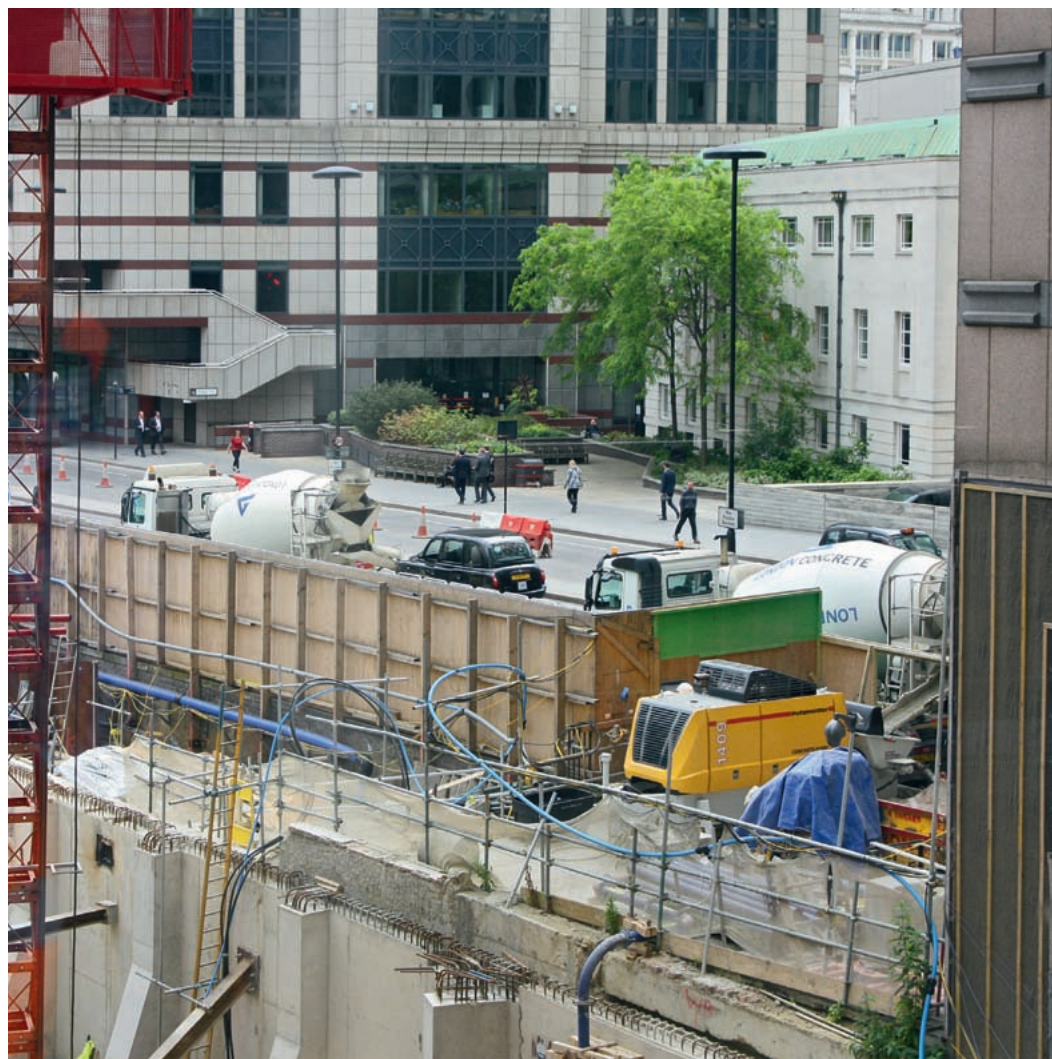
The main advantages of the new BSA D4

- Compliance with Directive 97/68/EC, Stage IV or Tier 4 final
- Smoother running performance that protects the machine
- Reduction in noise development
- Reduction in average fuel consumption of up to 10 %, resulting in lower operating costs
- Up to 15 % more power than similar Stage III/Tier 3 engines
- CE mark



London, the capital of Great Britain, has had an environmental zone for almost all of Greater London since 2008. This is the largest zone of its kind in the world.

In the city centre – at the site of the London Wall Palace – a BSA 1409 D4 was in service thanks to compliance with Stage IV.



Stationary concrete pumps are involved in the construction of the Western High Speed Diameter (WHSD) in St. Petersburg

Where the excellent and timely execution of assigned tasks is required and where other techniques may not be able to do a good job, the experienced construction brigades with Putzmeister equipment are hired. The use of Putzmeister concrete pumps assures the constructor of achieving the project results. The challenging job was the concreting of four bridge pylons with a height of about 100 metres in the Neva Bay, St. Petersburg, Russia.

The construction of the central section of WHSD is part of a large strategic investment project in St. Petersburg. This project will determine the development of the city as a major transport hub of international standards. WHSD will connect the southern, central and northern parts of the city with one highway. On this highway all transit flows will be switched, which will significantly re-

duce congestion in the historical part of the city and will increase the capacity of the sea port.

Moreover, the construction of the high-speed diameter will provide the motor-vehicle access to the ferry complex which is being built on Vasilyevsky Island.

For the handling of concrete while constructing the four bridge pylons, ICA – a partnership of the Turkish company IC İctaş Construction and the Italian company Astaldi – chose the company

Ltd. “STS”, a Ltd. “Putzmeister-Rus” partner, with its experienced pump operators. These teams had repeatedly proven their professionalism in solving complex construction tasks.

One location of concrete placement was situated on the side of Kanonersky Island, and the other one on the side of Vasilyevsky Island. The pump teams were operating two Putzmeister stationary concrete pumps BSA 1409 D. Each of them had to work on two bridge pylons, each approx. 96 metres high.

Technical data

BSA 1409 D

Output	97 / 67 m ³ /h*
Delivery pressure	71 / 106 bar*
Delivery cylinder Ø	200 mm
Delivery cyl. stroke	1400 mm
Strokes / minute	37 / 25*
Engine power	140 kW
Emission category	Tier III

Hopper	RS 909
Capacity	approx. 600 l
Filling height	1.3 m
Transfer tube	S 2015 D
Line connection	SK 125
Pressure connection	5.5"
Control system	EPS FFH
Weight	4,500 kg







The Putzmeister stationary concrete pump BSA 1409 D is equipped with proven PM technologies – with a free-flow hydraulics system (FFH), an electronic control system and a six-cylinder Deutz diesel engine with 140 kW power.

In 2014 one of those pumps had set a local record in long distance pumping: About 3,000 m³ of concrete was pumped horizontally to a distance of 950 m during the construction of the underground station Shushary in the area of St. Petersburg.

Output, pumping height and pumping distance may be different depending on the type of pumping material, operator's experience and location of the material on a job-site.

The pump includes the pump control and operating system Ergonic® Pump

System (EPS), which, among other things, decreases fuel consumption by automatically setting to optimum engine operation under the given load.

Each of the bridge pylons was concreted within 25 pours with an output of 25 to 40 m³/h. The volume of one pour ranged from 66 m³ to 223 m³. While raising the pylons, a SK delivery line was attached to each of them. A self-lifting formwork was used.

For each bridge pylon about 2,700 m³ of C40 concrete with P4 index of concrete flowability was pumped. The total amount of pumped concrete was about 11,000 m³.

“Putzmeister-Rus” thanks the company management of Ltd. “STS” and its workers for their help in organizing a photo session. ■

▲ Concrete was pumped up to a height of approx. 96 m using SK delivery lines





▲ The Winter Palace as seen from the river Neva

→ Saint Petersburg

Saint Petersburg is the second largest city in Russia, politically incorporated as a federal city. It is located on the Neva River at the head of the Gulf of Finland on the Baltic Sea.

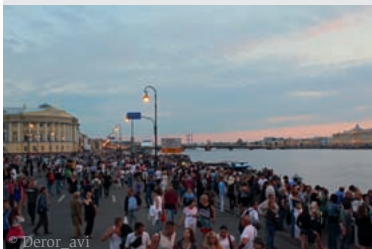
In 1914 the name of the city was changed from Saint Petersburg to Petrograd, in 1924 to Leningrad, and in

1991, back to Saint Petersburg. In casual conversation Russians may drop the "burg", referring to the city as "Piter".

Between 1713–1728 and 1732–1918, the city was the imperial capital of Russia. Saint Petersburg is a major European cultural centre, and also an important Russian port on the Baltic Sea.

The “Historic Centre of Saint Petersburg and Related Groups of Monuments” with 2,300 palaces, magnificent buildings and castles, constitute a UNESCO World Heritage Site. Saint Petersburg is also home to The Hermitage, one of the largest art museums in the world.

▼ People enjoy the White Nights in summer time



▼ The Bronze Horseman



▼ St. Isaac's Cathedral



▼ The Hermitage's staff of cats is another attraction besides art treasures of many centuries



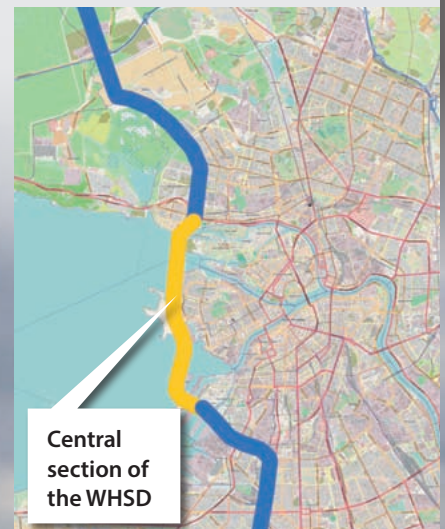
The **Western High Speed Diameter (WHSD)** in Saint Petersburg is the first urban high-speed toll motorway in Russia.

The only segment of the road open to traffic at the moment is an eight-lane motorway connecting the southern segment of the A118 beltway with two junctions at the Kirovsky and Moskovsky Districts, respectively. Other segments of the highway are currently under construction.

The overall length of the Western High Speed Diameter highway is projected at 47 km upon the scheduled completion.

The Western outer highway project's arduous 11.57 kilometre section consists of the construction of a viaduct that has 2,081 metres on the ground and the other 5,297 metres above the sea, the construction of 620-metre and 580-metre suspension bridges, a 168-metre sea-canal bridge, 2,417 metres of technological filling and a 407-metre tunnel.

During the process of both design and construction approximately 5,000 people will be employed.





◀ The 21-storey main building of the massive, McGill University Health Centre during construction. Today after completion, it provides more than 349,000 m² of floor space.

Montreal mega hospital

The 21-storey main building of the massive, McGill University Health Centre (MUHC) provides more than 349,000 m² of floor space and delivers 772 individual, single-bed rooms to serve approximately 345,000 outpatients, 22,000 inpatients and 65,000 emergency patients each year. The project is one of North America's largest concrete jobs with a footprint of 30,500 m². Multiple pieces of Putzmeister equipment, including two stationary concrete pumps, four placing booms and four towers, are being used to place the nearly 100,500 m³ of concrete required for the project.

The McGill University Health Centre is a merger of three existing university hospitals, Hôpital-Dieu de Montréal, Hôpital Notre-Dame and Hôpital Saint-Luc, into one of two major healthcare networks in Montreal. The new building features cutting-edge technology and comprises nearly all of the network's clinical services; its in-patient services, its diagnostic treatment services, plus all hospital beds and most of its outpatient clinics.

In order to complete the colossal project, two leading contracting firms, Laing O'Rourke and OBRASCON HUARTE

Lain, joined together to form Construction Santé Montréal (CSM). They hired Coffrage Alliance as the formwork contractor for the job, who turned to Laval-based TPG Concrete Pumping (TPG) to determine a plan for placing the immense amount of concrete required for the hospital.

Massive footprint

With a footprint totaling approximately 30,480 m², it was essential to figure out a concrete placing system that could reach all parts of the project with minimal set-up and tear-down. TPG suggested a set-up consisting of two Putzmeister BSA 2107 HP E stationary concrete pumps to pump up to four Putzmeister MX 36-4 placing booms. With a horizontal reach of more than 35 m each, the placing booms were able to cover nearly the entire project footprint.

"Due to the sheer size of the job, we needed to provide the most efficient concrete pumping solution," said David Mirabella of TPG. "The combination of the four placing booms worked really well for this application."



◀ Multiple pieces of Putzmeister equipment, including two stationary concrete pumps, four placing booms and four towers, are being used to place the nearly 100,500 m³ of concrete required for the project.

Delivering concrete with ease up to the 21st storey

To pump to the maximum height of more than 91m, the team selected two Putzmeister BSA 2107 HP E stationary concrete pumps to connect to the placing booms, which offer a maximum pressure of 220 bar.

“The Putzmeister equipment supplied by TPG proved to be critical and effective pieces of equipment in the concreting work at the hospital,” said Carl DiChiara, senior project manager for Coffrage Alliance. “Strength, versatility, and durability are synonymous with Putzmeister and TPG. The project featured unusual and difficult-to-pump mixes for which the equipment proved very reliable.”

Also helping to progress the project vertically was the Z design of the Putzmeister placing booms.

“We really appreciated the Z on the MX placing booms, which allowed us to fully deploy the boom atop our self-climbing shaft system,” said Benoit Hétu, formwork superintendent for Coffrage Alliance. “The task would have been difficult with a different boom style, due to the four tower cranes in constant operation on site.”

Harsh mix, long pours

The harsh concrete mix used, along with some of the pours taking place over a long period of time – up to 16 hours – also posed challenges on the job site. The project called for the use of an anti-corrosive, C80 (80 MPa) cement, which is 10 times stronger than the typical hospital seismic resistant strength required. “Regardless of the harsh mix design and the long pumping durations, the Putzmeister equipment was always ready to perform due to its free flow hydraulic system, which kept the systems running cool,” explained Mirabella. ■

► With the large footprint, it was essential to determine a concrete placing system that could reach all parts of the project with minimal set-up and tear-down.



➔ New MUHC: McGill University Health Centre

The project for re-developing the MUHC - the “New MUHC” began 20 years ago as a mere idea. This idea became the vision of a centralised, modern facility for providing all people of Montreal and Quebec – no matter what their age – with high-quality health care.

In 2008, the Quebec government approved 2,355 billion dollars for the New MUHC. And thus began the construction – on the former Glen railway property – of the new MUHC, comprising the Royal Victoria Hospital, the Montreal Children’s Hospital and the Montreal Chest Institute, as well as the new Cedars Cancer Centre and the Research Institute.

Work on the Glen site was completed in November 2014. April 2015 saw the largest hospital relocation in Canada’s history. Besides all the equipment, 273 patients were safely moved. Some 12,000 employees and volunteers were involved in the planning, training and relocation phases.

In June 2015, the MUHC achieved its overarching aim: All services were consolidated in one innovative facility, the idea being to provide modern, future-oriented health care.

The New MUHC is considered the most modern university hospital in North America with research facilities of international repute.

➔ www.muhc.ca



Putzmeister pumps save resources in Europe's largest coal power station

The Belchatow power station in the Polish province of Łódź has a capacity of 5,420 MW, making it Europe's largest brown coal power station. It is considered the third largest coal power station in the world.

Some 28 TWh of electrical energy, equivalent to around 20 % of Poland's entire

power requirement, are produced every year. The operator is PGE GieK, a company of the PGE Group, Poland's largest energy supplier. PGE produces electricity and thermal energy, primarily for the central and western parts of the country. Most of this energy comes from fossil fuels, but some also comes from renewable resources.

As it combusts coal, this colossal power station produces an enormous amount of flue ash. However, the construction materials industry has only a few customers for this product. The flue ash from brown coal combustion is lower grade than that from hard coal. The vast majority, therefore, is landfilled or used as backfilling material. If the landfill site is full, it is re-cultivated at a later time.

In terms of reliability, Putzmeister is the number one choice

The landfill site for the ash slurry is around 8 km away from the power station unit itself. The former system with centrifugal pumps was overburdened by both the volume and also the long pumping distance. The wear rate increased drastically. Failure of the pumps, and hence removal of the flue ash, would effectively cause the power station to shut down. The consequences do not even bear thinking about.

The reliability of the pump system, then, is paramount. That's where Putzmeister came in. In 2013, a total of six HSP 25150 HP seat valve pumps featuring the Putzmeister PCF system, each driven by a 800 kW hydraulic unit, were installed for transporting the flue ash of the entire power station. Currently, there are three pump lines in operation and three on stand-by. Some 600 m³ of flue ash slurry are pumped every hour.

Water and power consumption was drastically reduced

Because Putzmeister pumps are capable of conveying much dryer material, the water consumption is considerably less. The HSP pumps manage a 1:1 mixture of flue ash and water, relative to weight. The old centrifugal pumps required a mixture of 1:10! Previously, the 420 tonnes of flue ash accumulating per hour had to be mixed with 4,200 tonnes of water. Today, only 10 % of this water quantity is required and so the volume flow rate is drastically reduced. As a result, the power consumption is around half as much as that required for the old pump variant. At around 8,000 hours of continuous operation per year, this is no mean amount.

For around two years now, the Putzmeister pumps have operated reliably 24 hours a day, 7 days a week. They are equipped with high-performance Duro 26 components. Their service life has doubled from the original design of 2,000 hours to a genuine 4,000 hours. This significantly reduces maintenance costs compared to conventional wearing parts and improves the availability of the plant as a whole.

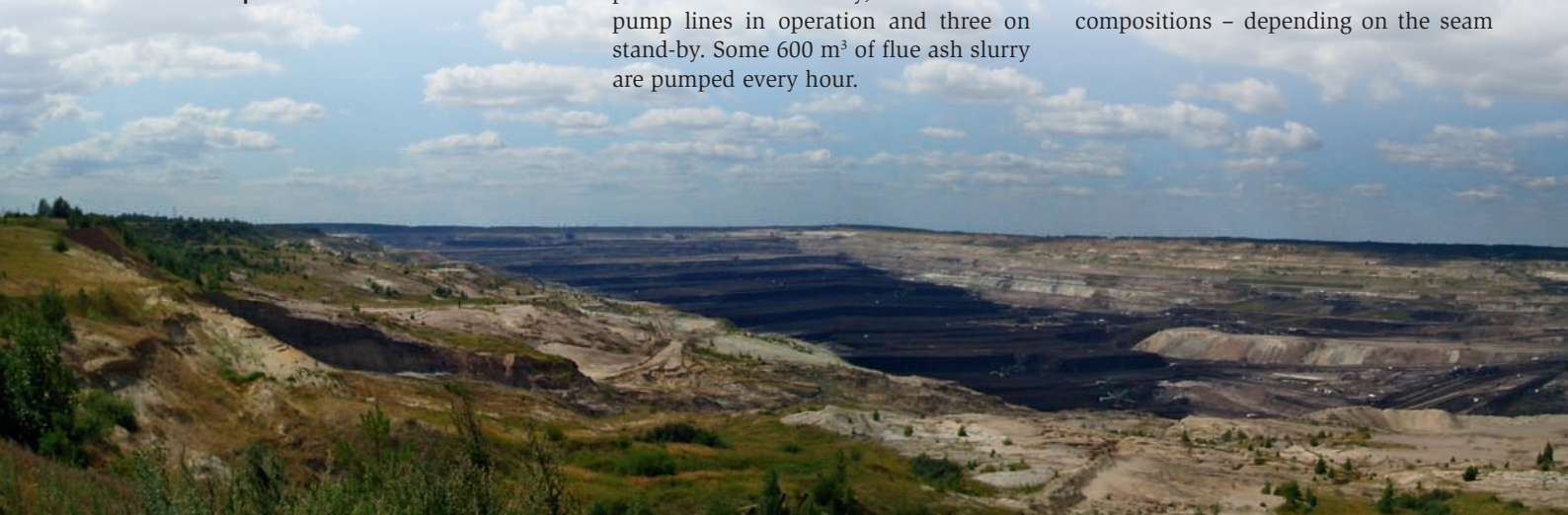
Pressure fluctuations in the material optimally mastered with PCF

Six individual DN 200 PN 100 delivery lines (max. 100 bar), each 8 km long, lead from the pumps to the landfill site. Each pump can be connected to each of the pipelines via a coupling station – a kind of "shunting yard".

Pressures may vary in the delivery lines, since the flue ash itself has different compositions – depending on the seam



▲ Two of the six HSP 25150 HP pumps in Belchatow power station



from which the coal comes. In order to protect the long pipelines from wear, PCF controls are installed at the Putzmeister pumps. The so-called Putzmeister Constant Flow control reduces the pressure differences that occur during the pumping switchover process and creates a more consistent flow in the pipeline. This is extremely important, since the long conveyor line could experience vibrations if the pressure were to vary constantly. In this case, the pipeline would be at risk of blocking and even breaking.

The plan is to expand the power station in 2016 by a new modern unit with a capacity of approx. 800 MW. This is to have two further identical pump lines for transporting the flue ash. ■



▲ The ash slurry is conveyed eight kilometres to the landfill site.

► The PCF control is important to trouble-free operation: Pressure fluctuations are reduced, the pipeline is protected.

►▼ Each pump can pump into each of the six conveyor lines via a distributor station.

▼ The flue ash mixture conveyed by the Putzmeister pumps contains only a tenth of the water compared to previously.



Headquartered in Warsaw, PWP SP. z.o.o. has been the Putzmeister agent for industrial engineering since the end of the 1990's. The company operates primarily in the energy and environmental technology sectors. Krzysztof Rudnik – CEO of PWP – sees very positive perspectives for the market in his country. Particularly successful areas in the past were waste water and power stations. Putzmeister is currently working on a Polish project for conveying coal slurry.





◀ Expansion of the Family Mall in Dohuk

One of the biggest malls in Kurdistan province in Iraq is being built. The total construction area is 146,500 m². The mall will cover 79,000 m² of gross built up area, and will include retail shops, a large hypermarket, cafes and restaurants and an entertainment centre with 8 movie theatres, bowling alley and an ice skating rink.

The Rawand Company uses four Putzmeister machines during the concrete placement: M 46-5, M 42-5, M 38-5 and M 36-4. The building consists of 4 floors.

The amount of concrete for the foundations alone is 68,000 cubic metres.



► University of Dohuk

The Rawand Company is also working on a building project for Dohuk university. Putzmeister pumps placed about 3,000 m³ class C25 and C30 concrete for two buildings each.



▼ International Hotel Project in Baghdad

In Baghdad city an international hotel is being built. It will include a shopping mall and international restaurants, meeting rooms, halls for events etc. It will rise up to 15 floors, plus two basements and one ground floor.

Putzmeister concrete pumps M 36-4, M 47-5 and M 42-4 are placing concrete (class C30 and C45) on the hotel's construction site.

The project started in 2014 and is expected to be finished in 2018. The project is being implemented by Baghdad's company Ard Al-Manasek.



▼ Biza Company in Sulaimaniya

In Iraq's northern province Kurdistan, in Sulaimaniya city, the ready mix company Biza Co. is working on several large concrete projects.



Iraqi customers rely on Putzmeister

© Muhammad Mahdi Karim, GFDL-1.2



Renovation of the Al-Abbas Mosque in Kerbala

In October 2014, the shrine saw the commencement of one of its largest projects ever: The construction of a basement intended to accommodate additional pilgrims. The basement is to be located under the perimeter of the main courtyard and involves systematically closing off parts of the courtyard and then destroying the current courtyard. The project is also set to deal with foundational issues of the shrine and reinforce the structure whose foundation has water gaps in it, as part of the Euphrates runs around the grave of Abbas. (Source: wikipedia)

Construction sites of Al-Abbas Holy Shrine company in Kerbala City

Underground expansion of Al-Abbas Holy Shrine

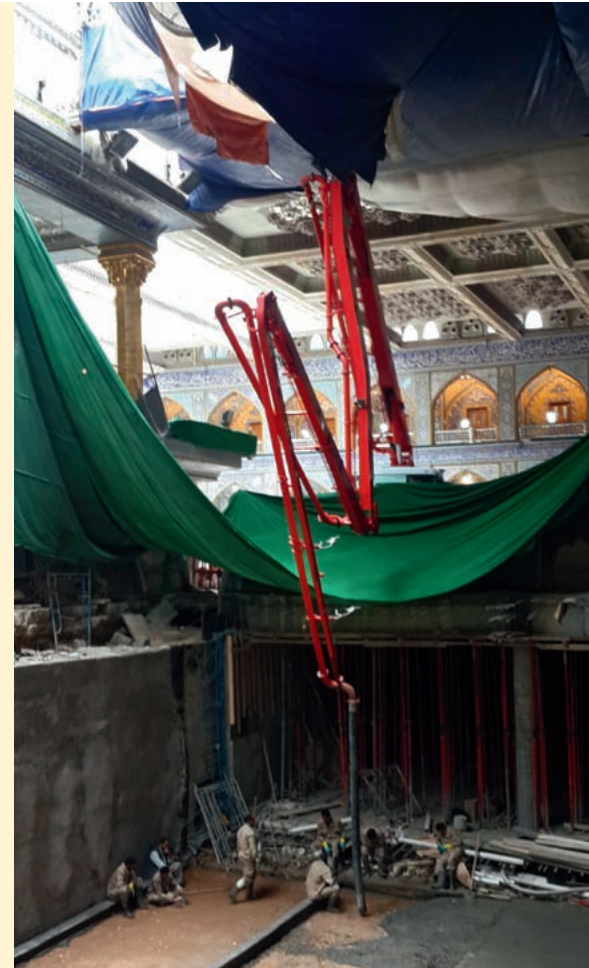
A Putzmeister M 36-4 concrete pump was involved in the underground expansion of Al Abbas shrine. The project started in 2014 and is still continuing. The class of concrete poured was C40.

Al-Kafeel garage project

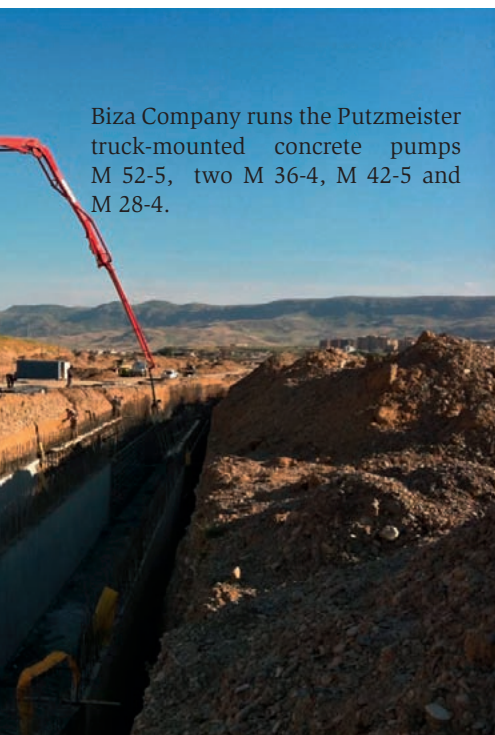
This huge garage belongs to the Al-Abbas Holy Shrine's facilities and includes a gas station, services, rest rooms, cleaning stations, etc. Putzmeister concrete pumps type M 52-5, M 49-5 and M 42-4 poured the foundations. Around 1,200 cubic metres of C40 concrete were pumped.

Oil refinery

This project belongs to the Ministry of Oil. About 6,000 cubic metres of concrete class C40 and C35 were poured by the same pumps as those working on the garage project.



Biza Company runs the Putzmeister truck-mounted concrete pumps M 52-5, two M 36-4, M 42-5 and M 28-4.



Putzmeister Iraq is close to your needs



▲ Mr Haider Al Salihi –
Your Putzmeister
partner in Iraq

▼ Putzmeister Iraq has built up a large spare parts stock in response to their customer's needs.



The Putzmeister Concrete Pumps Office Iraq is located in the centre of Baghdad and has recently enlarged its existing premises, building a new facility with a spare parts warehouse which has a large range of parts in response to their customers' needs.

Haider Al Salihi has been the General Manager there since 2009. Putzmeister Post asked him a few questions about his work and his views.

Haider Al Salihi, please tell us a bit about your what you do.

As Putzmeister in Iraq, we

- sell new and second hand machines directly from Putzmeister in Germany
- cover the spare parts demand of our customers throughout Iraq with technical support 24/7. We are working to respond rapidly to our customer's demands. Lately we managed to get a daily spare parts shipment.
- provide training for operators and customers
- have fully operational equipment to refill the nitrogen gas in our stock
- offer full technical support to our customers to efficiently resolve radio remote control issues and some technical difficulties with the cooperation of our colleagues in the radio repair shop in Germany. Currently, we are planning to offer radio repair support locally to help our customers' more quickly in some cases.

About our views, since 2009, after having restarted and reinforced Putzmeister activities in Iraq, we continue to widen the area that we cover with our services and are looking forward to enlarging our business and developing our facilities to support our customers even better. Putzmeister has been present in Iraq since 1975, so the company is already known to old customers. But on the other hand, Putzmeister had been practically absent from the Iraqi market during a period of

time because of a series of difficult economic, political and war situations.

In our point of view, to regain our activity goals in offering best services and deals and to improve our business conditions, we need continuous hard work and effort with the support of Putzmeister in Germany.

You have built new facilities and enlarged your existing ones. Why did you decide to do it and what has changed since then?

On the one hand it is due to market demand and the growth in the number of customers, and on the other hand the availability of spare parts is considered essential for performing maintenance in an efficient and economical way. Thus we have had to enlarge our facilities and build a large storage area for spare parts, divided into two parts: one with more than 120 square metres and another small store for electric and sensitive parts, as well as a show room for spare parts. Now we can supply our customers directly and faster.

We do our best to make our customers satisfied, they get technical support and spare parts easily without any delay to keep their machines running.

Plus, our new facilities and stock offer many advantages to our customers as they:

- keep less stock themselves,
- get just-in-time delivery,
- obtain an optimized supply chain,
- pay lower costs for supply chain,
- have shorter downtimes in case of failure or malfunction.

How can you support your customers on the construction site in case of need?

Generally, we intervene on the construction site when the customer asks for our help, they can contact us for troubleshooting or any technical support. In such cases, either we show them what to do in an emergency case to keep the machine running, or in case of need to work by ourselves on the machine on site, we would be there without delay.

You are situated in the centre of Baghdad. How do you reach your customers far away?

Nowadays by mobile phone, internet, emails and communication sites, getting into contact with customers becomes easier and more rapid. Sometimes, we take the initiative to visit a potential customer; we travel even to districts far away from Baghdad. Some customers also visit us on our premises. After continuous presence in the market with a good reputation, our business is becoming well known to potential customers.

Many people have a biased view of your country and cannot imagine what typical working life looks like. What about your typical work day?

As the manager and speaking about my work day, it may look like an ordinary work day; go to office early in the morning to start responding to customers, technical support, troubleshooting, send parts, order new parts for our stock, contact customers to promote our services and products, on-site support, billing and financial affairs etc. This may be a typical work day if we do not take into consideration the exceptional situation in Iraq, or the unsafe situation and the difficulties in moving between places in the same town and between cities.

What in particular is required of your work and what special challenges do you face?

Being in the growing Iraqi market wanting to build up our business with a good

reputation we have to keep up with all new developments in our domain and regarding Iraqi market requirements. Other requirements concern how to face customers' needs and demands to respond rapidly, to show a high performance, go to their sites when requested. In addition, it is important to our customers to be sure to get certified original equipment and parts. To face the growing market needs it is important to think seriously about planning to have a kind of training centre, for example in maintenance, to familiarize customers with our products and equipment.

Taking into consideration the current situation in Iraq with all its difficulties and risks sometimes it is not so easy to act as we wish, but the customers' trust shows that we are able to face the challenge.

What requirements do your customers have to face when pumping concrete?

They have to take into consideration the frequent traffic jams, check points or traffic rules not allowing huge vehicles to circulate before 4 pm. Extreme temperatures in summer, reaching sometimes 50 °C and more, cause difficulties during concrete pumping. This may be worse when using low quality materials (sand and stone) from some suppliers aiming to reduce costs.

Where do you think is your key market in Iraq?

Due to the economic situation, the most important segment of our market is the spare parts sales at the moment. We will expand the new and second hand equip-

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Putzmeister Iraq

ment sales, which had been quite difficult during Iraq's economic crisis.

From Baghdad, we cover the demand of our customers in most of Iraq, so we have special and key customers in Baghdad, Basra, north Iraq, Karbala, Najaf, Kut, and Diwaniyah etc.

I am doing my best to follow each customer and get his feedback. This feedback provides us with valuable insight about the quality and characteristics of our products and services. The customer, as well, usually appreciates this follow-up, especially when something hasn't gone right and we still have the opportunity to fix it in time. In addition, I transfer the information to our colleagues in Germany to help improve both processes and products.

To end finally with many thanks to all colleagues and special thanks to our colleagues in the APS department for their kind support.

Thank you for this interview ■

▼ Putzmeister Iraq presented an M 36-4 and a Putzmeister truck mixer at the Baghdad International Fair from November 1 - 10, 2015



Nomination in the "Best supporting actor" category

And the winner is: Putzmeister SP 11 TMR

Verden/Lower Saxony – Over the last five years, two Japan-inspired individuals from Lower Saxony have created in Walle near Verden, with a great deal of imagination and physical effort, around 2,000 m² of Japanese garden that is second to none in Germany. As a result, Matze and Andreas also starred several times in the VOX docusoap "Ab ins Beet".

This spring, Matthias and Andreas Biedermann were guests in the VOX series "Ab ins Beet" three times. The topic was the expansion of their Japanese garden by a Shinto shrine and accessory pond. An excavated pit on the way to the shrine almost suggested itself as another expanse of water. This pit had to be appropriately consolidated and made water-tight, to make sure that the pond

doesn't become the proverbial "bottomless pit" for the two garden lovers.

Matze, the 33-year old son-in-law, sought assistance and technical support from the specialist in the form of a Putzmeister SP 11 TMR worm pump.

Garden pond design – no problem for the universally applicable SP 11 from Putzmeister

First, the garden workers used pegs and wide plastic strips to create a stable border at the top edge of the pit, and this was shored up from outside with soil. Then the men lined the walls of the planned pond with fleece as the base for the layer of mortar to be applied later.

A specialist from Klarmann, an expert Putzmeister sales and service partner

since 1979, brought the flexible mortar conveyor with chassis braked and ready for the road, directly to the scene. He briefed the Biedermanns and another friend on how to use the SP 11: Water, cement and sand in the mixer, decant into the hopper and the worm pump conveys the mixture to the sprayer and its nozzle via a flexible hose.

Working with the Putzmeister SP 11 is as easy as washing a car

Task sharing: Andreas Biedermann took on the task of applying the 2 to 3 cm thick layer of mortar using the sprayer, while Matze's job was to rework any unevenness with a conventional smoothing trowel. An almost superfluous task, since his 56-year old father-in-law was soon up-to-speed and applied the mortar to the walls and fleece swiftly and evenly. "This is just like washing a car", the self-taught enthusiast was heard to say. Once the mortar layer had dried out, the pond builders used brushes to apply a final water-proof layer of insulating slurry, saving themselves the expense of a pond lining.

▼ Sand, cement and water – that's all the Putzmeister SP 11 TMR needed to line the new pond with an even, 2 to 3 cm thick layer of mortar.



And the new pond is ready – the Biedermanns can take stock

With an area of approx. 8 x 12 metres and a capacity of approx. 60,000 litres of water, the new pond can't exactly be described as a puddle. To give it the required hold and desired service life, the Putzmeister worm pump processed three cubic metres of material – equivalent to 60 sacks of cement and the corresponding amount of sand and water.

The paradise is available for viewing

Much has happened on the almost 2,000 square metres of space since the father-in-law and son-in-law team began in 2010 with a pond and just a few koi carp. The creation of the new pond and Shin-to shrine has now almost filled the area,

yet the Japan-enthusiasts are not giving up just yet. They want to keep the site in good condition, and gradually remedy the defects that crept in at the outset due to their lack of knowledge.

Visitors can take in this small piece of paradise on days of "The open garden gate". Further information can be found at www.japangarten-verden.de. ■

► **First, the edge of the new pond was formed with plastic panels and the loose earth walls covered with fleece.**



▲ "It's as easy as washing a car"! The 56-year old amateur gardener and Japan enthusiast didn't find evenly applying the mortar with a SP 11 spray nozzle hard at all.

► **Done. All the pond needs now is the final layer of insulating slurry.**



SP 11 TMR – the most powerful mortar machine for dry and construction site mixtures

Largest mixer/hopper available for working efficiently

Water metering pipe in the mixer cover prevents clogging

Lifting mixer for convenient filling thanks to low fill level

CE-compliant, simple and straightforward operation

New, especially effective mixing mechanism

Continuously adjustable pumping rate

Fully-hydraulic pump and mixing drive

Powerful 4-cylinder, 22.7 kW motor and large 26 litre diesel tank

Optimised noise damping with encapsulated motor

Stabiliser for ideal manoeuvrability with low support load

Optional patented dust extractor in the mixer cover

50 years at Neuland Beton: Jürgen Bitsch – an original



Jürgen Bitsch from Hamburg-based Neuland Beton celebrated 50 years with the company on 1 October 2015.

Many of Putzmeister's employees know Mr. Bitsch very well. He often travels to the Aichtal plant for collecting Neuland concrete pumps..

He knows our concrete pumps inside out and his suggestions always created impetus for improvements.

At the celebration on Neuland's premises, Manfred Wachsmann from the Putzmeister North branch presented Mr. Bitsch with a collage detailing numerous milestones along the long collaboration, as well as a large exclusive concrete pump model made of metal.



▲ "Hamburg's toughest concrete mixer"
Reported by BILD on 1.10.2015
[Courtesy of BILD Hamburg,
photos: Andreas Costanzo]

First truck mixer handover in Aichtal to the Heidelberger Beton Group

On 13.08.2015, the first Putzmeister P 9.1 UL truck mixer was handed over to the Heidelberger Beton Group. 9 UL stands for a 9 m³ ultralight mixer drum in Hardox quality.

Besides the standard accessories, such as plastic extension channels and a pendulum flap on the chute, this truck mixer is equipped with a Camos Omnivue 360° all-round camera system. All concrete pumps from the Heidelberger Group have featured this camera for around a year now.

At a glance

The system's core element are four cameras, mounted to the vehicle exterior, which completely record, in high resolution, the sides, the rear and the front of the truck mixer with a fish-eye lens. An electronic control unit amalgamates these four digital, high-resolution camera images, with optimised contrast and brightness, on a display in the cockpit in such a way that the driver has a bird's eye view of his vehicle. So the system offers him the perfect overview from various perspectives – live, in realtime and at the touch of a button.



▲ Added safety and comfort: High-resolution images in realtime and from various perspectives

Mr. Schmidt from Intermix GmbH in Heimertingen and Mr. Wenzel from the Eching Putzmeister branch, responsible for sales in Bavaria, handed the machine

to the operations manager of Heidelberger Beton Donau-Naab, Mr. Meier and the future driver, Mr. Rake from TBG Dietfurt. The truck mixer will be doing its rounds in the greater area of Neumarkt in Oberpfalz. ■



Putzmeister is the only manufacturer with import licence for large booms to Israel

In July 2015, three M 56-5 machines left the Aichtal plant for the Middle East. More precisely, by sea via Antwerp to Ashdod in Israel.

Putzmeister currently has the great advantage over its competitors of being the only concrete pump manufacturer to have applied for import licences to send large boom concrete pumps to Israel, and so is allowed to import concrete pumps with placing booms of over 42 m into the country. The machines are mounted on modern Euro 6 chassis from Mercedes Benz.

Could there be a new "Die Pumas" branch in Israel?

The M 56-5, painted in the colours of German customer "Die PUMAS" – albeit with Hebrew signage – stands out at the Aichtal plant. The pump is going to customer Al Massri, who saw the M 63 being exhibited at the last bauma and ordered his machine in the same design.

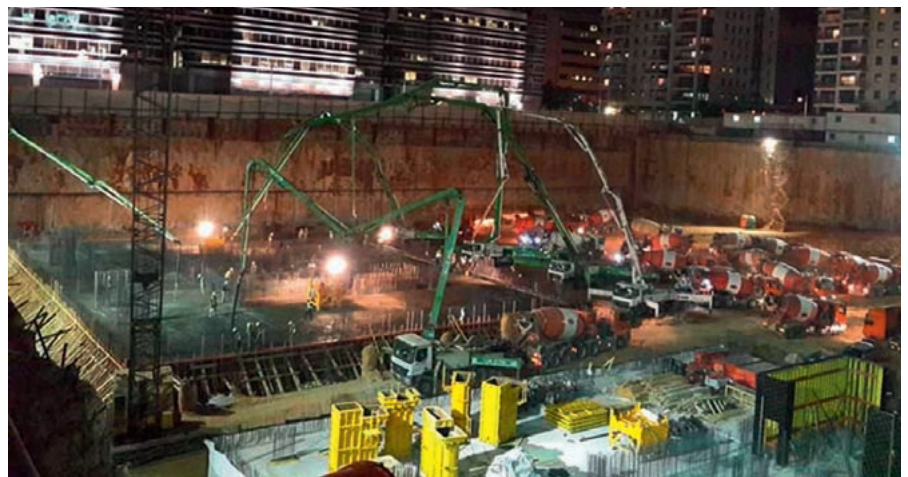
Machines have been ready for collection from the premises for some time

Once completed, the big boom machines stood at the collection point for an exceptionally long time. There's a simple explanation for this too: The import licence application can be made only after TÜV acceptance. And a good two months can pass until the Israeli Mercedes dealer is finally granted the import licence.



▲ Finally: Large boom pumps leaving for Israel

▼ Putzmeister customer Amar Brothers concreting a foundation in Tel Aviv



▼ "Bought as seen": Al Massri, customer in Nahef, liked the colour combination of the bauma exhibition machine





The blog on shotcrete: bestsupportunderground.com

Putzmeister Ibérica updates its blog with tips, tricks and information about the use of shotcrete in tunnel construction and mining every two weeks. The English and Spanish language site is optimised for use on mobile devices such as tablets or smartphones.

An example:
"What is shotcrete?"

The blog post from July 2015 explains shotcrete very clearly in an infographic (see figure on right):

- Definition
- Components
- Methods
- Application
- features

[Putzmeister Ibérica is responsible within the Putzmeister Group for the production and sale of shotcrete machines and transport vehicles for tunnel construction and mining.]



DICOM working with Putzmeister equipment in the Fresnillo mine, Mexico



▲ In total DICOM works with four SPM 4210 WETKRET in the Fresnillo Mine

The Fresnillo underground mine is located in the eponymous municipality in the central state of Mexico, Zacatecas, an area with rich mining resources.

This mine, located at 2,200 m.a.s.l., was discovered in 1554 and is property of the mining company Fresnillo Plc, the division for precious metals of the Mexican company Peñoles since its reorganization in 2004, listed at the London stock exchange.

In the Fresnillo mine, silver and gold are being extracted primarily, and to a lesser extent lead and zinc. Its processing plant has a capacity of 8,000 t per day (2,640,000 t annually). The reserves of the mine amount to 277.55 million ounces of silver, accounting for 96 % of the Peñoles group's reserves and making it the most productive silver mine of the world. The gold reserves account for 667.000 ounces, making it the second most productive gold mine of Mexico.*

Rock support with mechanized, wet-mix shotcreting

One of the contractors in charge of the exploitation of the Fresnillo mine is Diseños y Construcciones Martínez (DICOM), one of the big Latin American construction companies headquartered in Fresnillo, Zacatecas. Being a specialist in the integral mine development process, DICOM takes care of drilling and blasting, ground support and mucking out, as well as electrical, water and ventilation installations and mine infrastructure. Apart from mining, DICOM is also present in other fields related to infrastructure construction and architectural design.

Depending on the meters of advance per day and type of rock, rock support in the Fresnillo mine is carried out by means of anchor bolts, wire mesh and shotcrete.



DICOM applies mechanized, wet-mix shotcrete, working with Putzmeister machinery.

Previously, DICOM used the dry-mix method for shotcreting, but switched to wet spraying not only to comply with current regulations, but also because of the multiple advantages associated with this method:

- The security of the operator is increased as he does not work in the yet unstabilized area
- The reduced quantity of dust leads to a healthier working environment
- With the wet spraying process a higher level of support is achieved
- Mechanized concrete spraying is more efficient
- Maintenance costs are reduced
- There is less rebound than with dry spraying
- The working cycles are shorter
- Less manpower is required

As far as additives for the shotcrete mix are concerned, DICOM mainly works with Sika products. For example, the use of retardants is required for transport, as the concrete plant is located outside the mine, and the excavation face is situated approximately 10 km away from the entrance.

Additionally, plasticizers and accelerants are added for spraying. The fibers usually used are macro-synthetic (high density) polyethylene fibers.

Putzmeister SPM 4210 WETKRET DUAL DRIVE and MIXKRET 4 in the machine park of DICOM

DICOM owns four SPM 4210 WETKRET Dual Drive concrete spraying systems, which can be operated both electrically and by the diesel engine to be able to work in areas without electrical supply.

The SPM 4210 WETKRET series has a spraying arm with a vertical spraying reach of 10 m, as well as a concrete



◀ **Fresnillo is considered to be the most productive silver mine in the world. In the background Cerro Proaño can be seen.**

▶ **The Shotcrete team after their successful work**



pump with a capacity of 20 m³/h. Its proportional remote control (cable and wireless) permits full regulation of the concrete output as well as adjustments to the predefined additive dosage. In this way, the machine operator can cope with the changing working conditions in the mine.

The equipment features a heavy-duty chassis with state-of-the-art axles as well as a reinforced turning system which facilitates working in the harsh conditions of mining, as for example in Fresnillo where the machines descend until levels of 1,270 m of depth by their own means.

The hydraulically-operated synchronized peristaltic additive pump is equipped with an automatic dosing device proportional to the concrete flow, thereby assuring spraying accuracy and quality.

Besides, DICOM possesses four low-profile concrete mixers of the MIXKRET 4 series, with a capacity of 4 m³ for transporting the pre-mixed shotcrete from the concrete plant to the excavation face located 10 km from the entrance.

MIXKRET 4 is equipped with an Integrated Continuously Variable Drive (ICVD) system without gear shift, taking full

advantage of the engine power at any time without interruptions in traction, making operation easier for the driver.

The heavy-duty axles, four steering and driving wheels (4x4) as well as a powerful 6-cylinder 130 kW / 174 HP motor provide great climbing and movement power. The engine features an AAC (Automatic Altitude Compensation) system that enables its operation at high altitude offering the same performance. The MIXKRET equipment used by DICOM incorporates the optional additive discharging system with a deposit of 120 l, to optimize shotcrete additive logistics. ■

NEW: The compact WETKRET 3

The mechanized concrete spraying system WETKRET 3 is designed for shotcreting in small tunnel sections with difficult access. Mounted on a compact crawler chassis with a 17.9 kW Diesel engine, the equipment features hydraulically operated support legs and an optional $\pm 30^\circ$ tilting system, guaranteeing stable operation in ascending and descending slopes.

The telescopic spraying arm with a maximum reach of 9 m permits working in minimum sections of 2.5 m and is operated by remote control (dual use by cable and wireless). ■



Technical data

L x W x H 4.67 m x 1.87 m x 2.35 m

Weight 5.0 t without load
5.5 t with load

Telescopic spraying arm Putzmeister SA 9.1

Max. spraying reach vertical 9 m
horizontal 7 m

Min. unfolding section vertical 2.5 m
horizontal 2.4 m

Max. arm angle $+65^\circ / -40^\circ$

Dual drive pump / spray system

Electric 11 kW

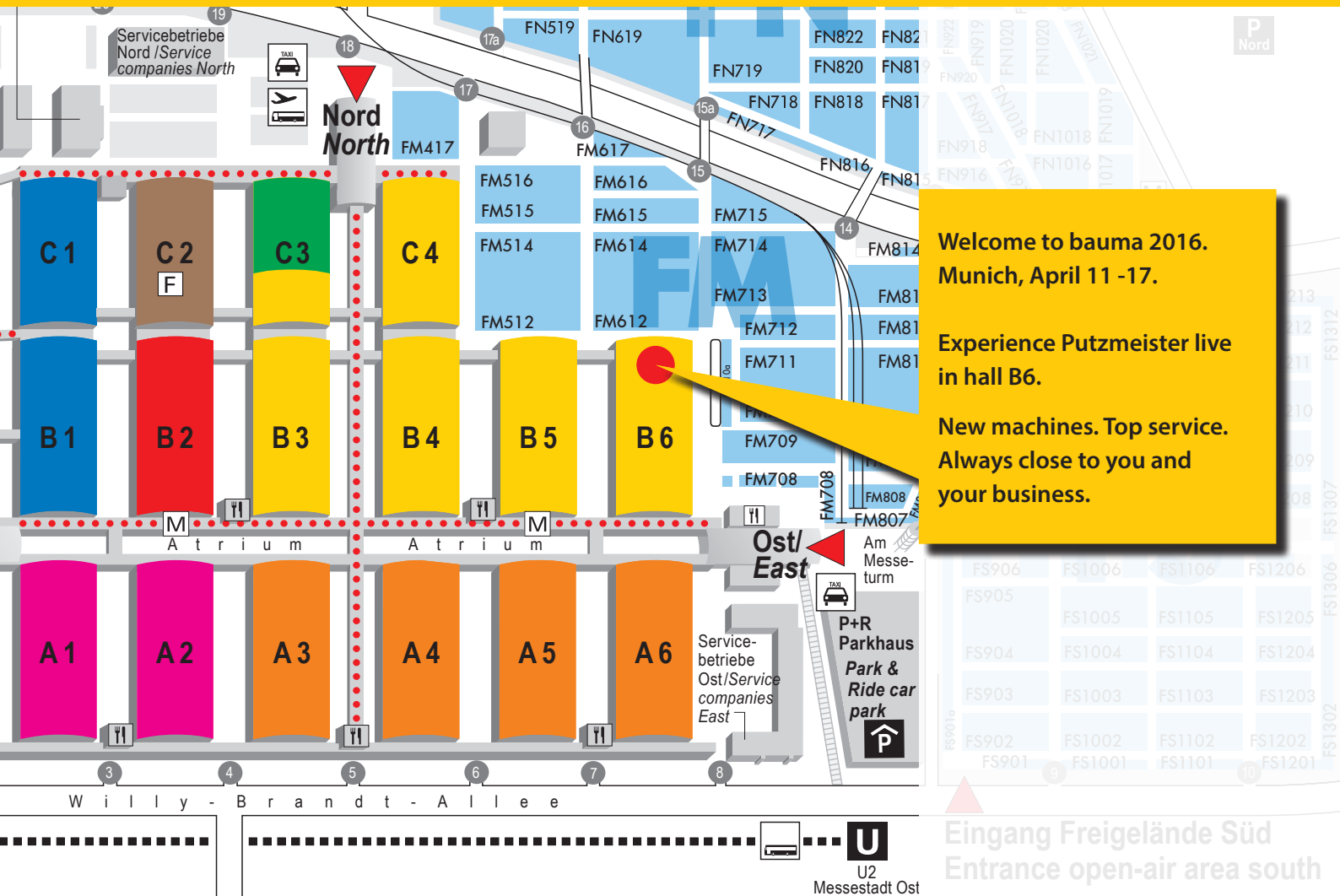
Diesel 17.9 kW (24 HP)
at 3,000 rpm

Crawler carrier

Engine Diesel, 3 cylinder

Engine power 17.9 kW (24 PS)
at 3,000 rpm

Close to your business – bauma 2016



bauma April 11 -17, Munich



Putzmeister

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