

# BULLETIN

ROBIT PLC CUSTOMER MAGAZINE 1/2024

Lifting the  
Oregon Capitol

off the  
ground

Robit H Series

Changing the DTH  
hammer game

Laying the foundation  
for the Tampere tramway

Robit



# DEAR READER,

As I'm writing this, we're about halfway through a busy year. One of the highlights of this first half was definitely our Distributor Days, held in May in Tampere, Finland. Three days of intense discussions, new contacts and old friends, demos, presentations, fun times together – and in gorgeous weather, too. Read more about it on page 14.

This year has also seen some exciting product launches. Our H Series hammers are redefining, or should I say, revolutionizing the Down the Hole hammer scene. Learn more about this modular, versatile game-changer on page 6.

In the Top Hammer world, we introduced the new Extreme Carbide bits that are already delivering more drill meters for our customers. More on that on page 10.

In a last year's issue, we introduced Robit® Save, our site audit program. It has proven to be a great way to work with our customers, leveraging both their and our expertise to improve efficiency and sustainability in drilling. One of the latest Robit® Save success stories occurred in Peru, and we discuss it in more detail on page 12.

Let's stay in touch, keep the ball rolling, and have a lovely summer – or winter, as the case may be. Lastly, to quote our new tagline: Let's drill better!

**Arto Halonen**  
Group CEO



*Hilla's successful season gave cause for celebration at Robit.*



Flushing the drill hole is an important part of pile drilling.

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# Building a stronger OREGON CAPITOL

Last year saw a massive geotechnical operation at the Oregon State Capitol: the entire building had to be jacked up off the ground. Robit's micropile casing systems played an important part in the process.

The Oregon State Capitol building has faced many misfortunes throughout its history. The first capitol burned down in 1855 – only a few months after its inauguration. The second capitol met the same fate in 1935.

However, fire is not the only force of nature that has put the state capitol in peril. Large parts of Oregon, including the capital city of Salem, sit on a tectonically active fault line called the Cascadia Subduction Zone.







Shoring towers stretching across the entire footprint of the Capitol building.

In March 1993, a 5.6-magnitude earthquake – the largest in the Pacific Northwest in over a decade – cracked the cupola of the Capitol and created a massive bulge on its west end. Parts of the building remained closed for repairs for almost two years.

Over the following decades, the State of Oregon conducted several studies to determine how best to protect the historic building from further seismic events. After investigating various options, the review committee decided on *seismic isolation*. In other words, the foundation of the building would rest on so-called pendulum isolators and a seismic joint that allows the entire complex to move independently in any direction from the surrounding ground during an earthquake.

This would be no small task; it meant that the Capitol building would have to be lifted off the ground. This would be achieved by constructing a shoring tower structure on which the building would rest while the new isolation system was being built. As the Capitol had needed extra space for years, it was also decided that an additional basement level would be constructed.

The main contractorship for the geotechnical work was awarded to Pacific Foundation, a family business based in Vancouver, WA. The company started as a small-scale drilling operation in 2012; since then, it has grown into a large contractor capable of tackling complex geotechnical challenges.

Regarding challenges, the Oregon State Capitol project was far from a typical scenario where, slightly simplified, you arrive at the job site, drill the piles into the ground – and that's it. Here, the first challenge was

to gain access underneath the Capitol and excavate enough space for the drill rigs to fit in. This phase started in late 2022.

The work continued throughout 2023 and entailed drilling micropiles into the ground across the entire footprint of the building. At best, seven drill rigs worked simultaneously in narrow spaces with only a few inches of clearance above. Two-thirds of the micropiles were Robit casing systems, while one-third, the outside piles, were double rotary systems. The micropiles supported a total of 175 shoring towers upon which the jacked-up building would sit until the work was completed. The tower construction and the jacking operation were performed by trusted partners.

By Christmas 2023, the micropiles, totaling as many as 722, were installed. By late January 2024, the building was resting on the shoring tower structure, paving the way for the seismic isolation system and reconstruction efforts.

For Pacific Foundation, mission success has probably never been more critical. The project required massive amounts of structural engineering and careful planning and coordination by all participating parties to stay on schedule and maintain safety – not to mention that while the work was in progress, the state legislature was in session just a few feet above.

The construction work at the Capitol will continue into 2025. Once finished, the historic marble building should finally be able to stand firm against any future seismic events.



# ROBIT H SERIES

## Unmatched versatility for DTH hammers

**A simple fact affects all manufacturers of drilling consumables: no two drill sites are the same. Consequently, they need to provide the market with a vast range of tools, e.g., hammers, to meet all varying needs. Robit is looking to change this with their new H Series of DTH hammers.**

The new H Series hammers have been designed with performance and versatility as their guiding principles. The goal was to develop a hammer range that the customers could use in different environments with minimal breakages and maximized utility for each operator's circumstances.

Customer feedback led Robit to develop a new modular design, offering increased flexibility and adaptability to varying conditions. With a few simple changes in the assembly, the hammer can be customized for varying needs; whether you want to run them with improved productivity in mind or need to be able to use a lower-capacity compressor, the H-series hammers can adapt to these requirements.

The modular design of the H Series allows Robit to offer up to 16 hammers in one base design. The assemblies will include the standard Heavy Duty (HD) and the custom-turned Slim Line (SL) versions, the only difference being the outer diameter of the external parts. They will also be available in the QL and the DHD shanks for all sizes.

The hammer operation selection includes the conventional version (FV) using bits fitted with foot valves and the tubeless version (TL) to be used with bits without the foot valves. All of the above versions can be fitted with a quick swap high power (HP) or low volume (LV) inner cylinders for airflow optimization.

The high-power assembly offers high blow energy and air volume, resulting in a fast penetration rate, and is suitable for deep-hole drilling. On the other hand, the low-volume assembly provides lower blow energy and air consumption, which is ideal for soft ground, while keeping the hammer energy efficient by being suitable for drill rigs with smaller compressor output.

In sum, the H Series hammer promises better fuel efficiency, penetration rate and reliability, and easier handling and control – all compelling selling points in the DTH market.





# Test results convinced Brauteseth to **CHOOSE ROBIT**

**Phalaborwa is a vast mining complex located next to the mighty Kruger National Park in the northeast corner of South Africa. It is host to several valuable minerals such as copper, phosphate, zirconium, iron, and vermiculite.**

One of the entities within the Phalaborwa complex is the Foskor open-pit phosphate rock mine. Phosphate is a critical mineral in fertilizers. Before the foundation of the Foskor mine in the 1950s, South African agriculture depended on imported phosphate rock. Today, largely thanks to Foskor's success, South Africa exports phosphate fertilizers worldwide.

Drilling and blasting at the Foskor mine in Phalaborwa is operated by Brauteseth Blasting, a family business founded in 1983 in the KwaZulu-Natal (KZN) province of South Africa. The company started as a small-scale civil blasting company catering to KZN's construction industry. In forty years, it has grown into a major national player, contracting to more than 20 quarries, five large-scale mining operations, and several construction sites.

Brauteseth has built its success on two cornerstones: a highly skilled, motivated staff and continuous investment in top-of-the-range technology and equipment. This focus on quality tools extends to consumable parts as well.

Brauteseth Blasting operates eight drill rigs at the Foskor mine. As their consignment agreement with their then-supplier of DTH hammers and drill bits was ending in late 2023, Robit SA approached Brauteseth, requesting a performance test of Robit's and the then-current supplier's DTH tools.

The extensive testing period started in October 2023 and was completed in February 2024. Robit's tools included the D65 QL60 3½" API REG blast-hole hammer and 165 mm QL60 Flat Face blast-hole bits.

"The test results were clear: Robit's tools outperformed the competition in terms of penetration rate and cost-per-meter", says **Duane Kukard**, Area Sales Manager at Robit SA.

Convinced by the tests, Brauteseth Blasting signed a consignment agreement to supply their drill rigs at the Foskor mine with Robit's DTH 6" equipment.

Since May 2024, all eight of Brauteseth's rigs in Phalaborwa have been drilling blast holes with Robit's tools – now with increased efficiency and profitability.





*Pile drilling in progress on a bridge job site for the Tampere tramway.*

# Laying the foundation for the TAMPERE TRAM

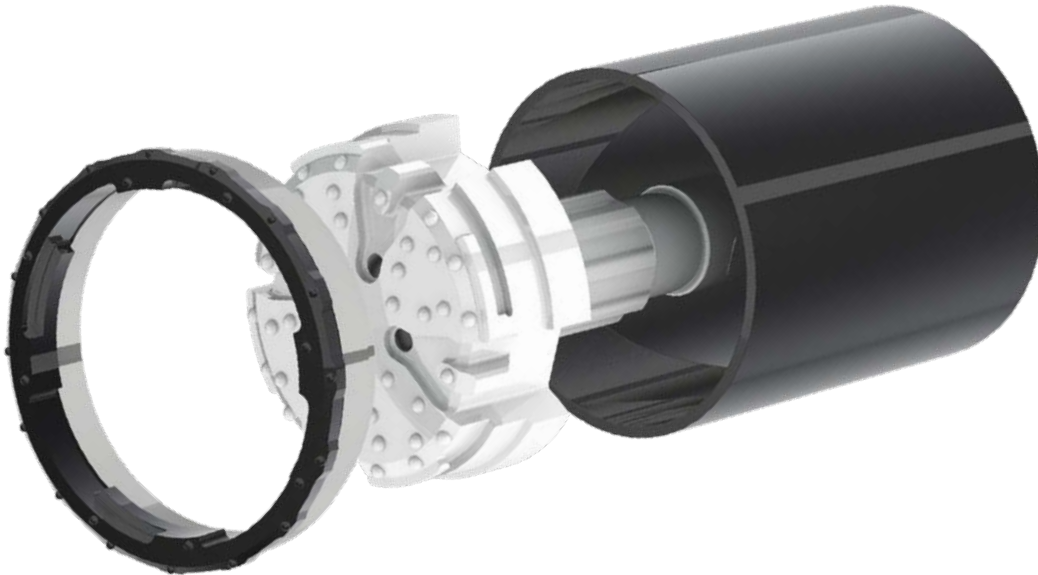
**The city of Tampere is extending its tram routes to the western suburbs. Infrastructure construction and maintenance in this alliance project are provided by YIT. They have used a variety of foundation engineering methods to ensure solid results.**

Tramway Section 1 (TAS 1) was implemented in six segments from 2017 to 2021. The first section included tram tracks and stops from Pyynikintori eastwards to Hervantajärvi and from the University Hospital to Sori Square. Service on the first section began in August 2023.

Tramway Section 2 (TAS 2) includes the section from Pyynikintori to Lentävänniemi in the west. Construction of the last part, Santalahti–Lentävänniemi, began in spring 2022. If all goes to plan, tram service to Lentävänniemi could begin at the start of 2025.



*Robit DTH SR pilots and ring bits were widely used by YIT in the foundation works on the tramway project.*



The total length of the Tampere tram network for sections 1 and 2 is approximately 24 kilometers. The planning phase for tramway section 3 is currently underway, with the city council expected to decide on its implementation by the end of 2024.

#### **A wide variety of tasks**

YIT's role in the project has included foundation work, sewerage, cabling, bridges, retaining walls, rail installations, paving, roundabouts, sidewalks, 24 tram stops, and more. Due to the significant elevation differences along the route, 20 retaining walls were constructed. Nine new bridges were also built, including a 18-meter-high railway bridge, and the 250-meter Vacker Bridge.

YIT also constructed a modularly designed depot in Hervanta. Before its construction, 250,000 m<sup>3</sup> of rock was excavated, some of which were used for the depot's site embankments. The remaining quarried rock was used as aggregate elsewhere in the project.

#### **Foundation work is key**

The foundation work included varying types of ground reinforcement as well as the lower structure of the tram tracks.

"We've made reinforcements for all sorts of foundations: clay, hard rock, several meters of

peat, etc. We've done multiple kilometers of piling, especially for bridges, where we used piled slabs. Also, various retaining walls, mass replacements, lightweight fills, and preload embankments," says **Veetu Helkiö** from YIT Infra, who worked as a supervisor for TAS 1 and a site engineer for TAS 2.

YIT has mainly used their own equipment in the foundation work.

"We've used both drilled and driven piles extensively for reinforcements, with Robit supplying reamers for the piles and bits for drilling. Most reamers went directly to the pile supplier, which sped up the process. Some were also welded on-site. We had a good supply of drill bits the whole time, and Robit's deliveries were timely, despite the global challenges with material flows. Domestic production is an asset, as was the short distance from Robit's Lempää facilities to the tram construction site, which means deliveries were really quick from Robit's warehouse," Helkiö praises.

The foundation work for TAS 2 was completed late last year.

"The project went well overall, and we met our schedules despite challenging times. This was a unique and interesting project, integrating many different work phases," says Helkiö.



The latest outcome of product development from Lempäälä, Finland: the Extreme Carbide Top Hammer bit.

# EXTREME CARBIDE

## a performance boost for TH bits

**Top Hammer (TH) is a common method for drilling hard rock in mines, quarries, and construction. The hammer strikes the rotating drill bit via a drill rod or pipe thousands of times per minute, rapidly wearing out the bit's buttons. Improving the durability of drill bits is a key area of continuous research and development for Robit.**

In TH bits, Robit's latest innovation is the Extreme Carbide button. Its core is the same material as Robit's tried and tested standard TH button, but it is coated with a new, more wear-resistant carbide alloy, giving it more drill meters before sharpening is needed.

"Robit has been developing Extreme Carbide buttons for some two years in Lempäälä, Finland, in cooperation with our long-standing button suppliers," says R&D Engineer **Lauri Söderberg**.

Field tests are naturally an integral part of the product development of drilling components. The first tests were carried out in Sweden in the autumn of 2023

with the cooperation of EuroDrilling Center (EDC), a distributor of Robit's products in Sweden.

"EDC is an essential partner for us, and we wanted to leverage their deep expertise. They also found suitable test sites on short notice," says Lauri.

The test involved 76, 83, and 89 mm TH bits that were evaluated for diameter wear, sharpening interval, and penetration speed.

"The tests demonstrated that the new button adds value to our product. Especially in harder and more abrasive rock conditions, Extreme Carbide outperforms our proven standard TH bit", says Lauri.

The testing phase was completed in April 2024, and the new Extreme Carbide TH bits are currently available on the market alongside the standard TH bit. Although the R&D work on this bit is concluded, the team in Lempäälä will continue their quest to find the next breakthrough.



# Aginco & Robit: Synergy in Saudi Arabia

**Saudi Arabia has been a dominant force in the global oil market for more than 80 years. With the inevitable shift away from fossil fuels gaining pace, the country is now in the midst of a profound transformation that will diversify its oil- and gas-dependent economy.**

The main goals of the future Saudi economy are outlined in the ambitious Vision 2030 program, which involves heavy investments in several sectors. One of them is tourism, which will see massive infrastructure and other construction projects in the coming years.

Another focus area is mining: Saudi Arabia is rich in a number of valuable minerals such as gold, phosphates, and bauxite, and the government is actively encouraging foreign investments in the sector.

These developments have made Saudi Arabia an attractive growth market for global players in the industry – and Robit is no exception.

Robit took a decisive step forward early this year by signing a distribution deal for their drilling tools with Aginco, the Kingdom's leading supplier of drilling equipment and tools. Founded in 1978, Aginco serves the mining, engineering, and construction sectors with top-of-the-range materials and extensive professional services.

Aginco seemed like the perfect match for Robit, says Robit's Distributor Business Manager **Ahmad Afridi**. "Both parties saw big potential for synergy. Robit is a well-known brand in Saudi Arabia. As Aginco also represents Normet and other top brands in underground mining and construction, we have a great product portfolio to serve similar customers."

"Aginco is also a growth company like Robit. We are excited to work together to gain a larger share in this heavily competitive market. I see major growth in the following years in mining alone", Ahmad says.

From Aginco's perspective, the collaboration marks a significant milestone in their mission to support Saudi Arabia's Vision 2030 goals. Aginco's director, **Faisal Sindi** comments:

"We are excited to partner with Robit, a globally renowned brand in the drilling industry. This collaboration aligns perfectly with our commitment to bringing world-class products and services to Saudi Arabia. Together, we aim to contribute significantly to the Kingdom's economic diversification and growth, particularly in the mining sector, which holds tremendous potential."

*Foundation work for the massively ambitious NEOM project in the northwest corner of Saudi Arabia*



# Robit® Save kept its promise in Peru

**Robit® Save, Robit's new site audit program, promises cost savings to new customers. It's built on a compelling idea: you first pay 20% of the value of the goods you receive – and if Robit can't keep their promise, you won't be paying a penny more.**

In late 2023, Robit approached an underground mine in the Central Andes in Peru with the Robit® Save proposal. The polymetallic mine produces zinc, copper, lead, silver, and gold. A drillmaster would first observe and record the performance of the operator's drilling tools, after which Robit's tools would be put to the test in identical conditions.

A drillmaster would first observe and record the performance of their drilling tools, after which Robit's tools would be put to the test in identical conditions. "We tested three types of drilling at the mine: development drilling, support drilling, and long hole drilling. The tested tools included relevant drifter rods and Robit RBit drill bits for each application", says **José Cisneros**, Managing Director of Robit SAC.

The tests were run over one month in November–December 2023, and the results left no room for speculation.

"On average, we reached 9.5% more drill meters than their supplier. Our penetration rates were 8% better in development drilling, 7% better in support drilling, and 12% better in long hole drilling", José recounts.

For the mining company, the results proved to be positive in many respects. "The operators were pleased that they could finish the job faster and had fewer changes of bits per shift, and the mine and operations management were happy they could cut fuel consumption and plan their work more efficiently.

"The Maintenance department got good feedback on cost reductions largely due to the lower temperature obtained in the whole drill string, which improved the lifetime of drifter spare parts. Everyone agreed that the RBit is an excellent solution to reduce costs by increasing penetration rates and gaining more drill meters", José sums up.





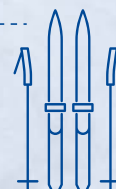
The Robit Lempäälä team fine-tuned their skiing technique under Hilla's and her coach Ville Niemelä's guidance at Kauppi Sports Park in Tampere, Finland.



Winter 2023-2024

# HILLA'S TRAINING DIARY

Robit signed a sponsorship and cooperation agreement in 2021 with Hilla Niemelä, one of Finland's most promising young skiers. Hilla has been keeping a training diary for our readers; here is episode 5.



Another great competition season completed. After the flying start in November, we knew I was up a notch from last year. The main focus was my final Under 23 World Championships, which took place in Planica, Slovenia, in February. The World Cup races were also important goals.

The Finnish Cup races in the early season went well, with improved speed and endurance, especially in the sprints. In the Ruka World Cup sprint, I qualified 16th and was 21st in the final – my best performance at the World Cup level. At the Trondheim World Cup, I made the top 30 in the freestyle sprint for the first time. I also did my first skiathlon there at a few days' notice. The classic part went well, but shifting to freestyle threw me off a bit – I had had zero skiathlon training.

After Norway, it was time for a short Christmas break, which I dedicated to training – an essential period for the first races of the year. In January, at the Scandinavia Cup in Otepää, I couldn't get it all together, although I had been in good form when training at home. I also did a couple of races at home before leaving for Planica for the U23 World Championships.

On the way to Planica, I felt that if I could get into the right gear, the payoff would be good. And that's what happened. On my first racing day, I won my first World

Championship medal in freestyle sprint. After qualifying in 2nd place, I knew it would be my day, as long as I could avoid falling or equipment failure. It's the greatest day of my career so far, and I'll never forget the feeling I had crossing the finish line! In Planica, I also completed the classic 10 km with flying colors, finishing 7th.

After returning from Slovenia, I took some time to recover, but there were still important races ahead in Finland. One of the highlights of the late season was the Lahti World Cup, where I qualified sixth in the sprint. Unfortunately, I fell in the heats, and a place in the semi-finals never happened.

In Espoo, I competed in the Youth Finnish Championships in the 10 km freestyle and brought home the gold medal. In Äänekoski, I anchored our team to silver medals, and in the Finnish Cup in Rovaniemi, we won the relay cup event. All in all, an excellent season, which increased my motivation and confidence even more.

As I write this in the spring, it's time to let my body recover and focus more on my studies before the new training season begins. I'm setting my sights on the coming World Championships in Trondheim.

Best regards, **Hilla**



# Distributor Days 2024

## Three sunny, successful spring days in Tampere

Robit's Distributor Days (DD) brought together almost a hundred professionals in Tampere, Finland, in late May 2024. In addition to Robit's folks, the participants included people from 21 companies worldwide.

The first day of the three focused mainly on presentations and talks on new products and services, culminating in a grand gala dinner in the hotel ballroom.

Day two was mostly dedicated to case studies, group work, and workshops on various subjects ranging from risk scenarios to service, fuel savings, and growth generation. Participants could choose between Top Hammer, Down the Hole, or Geotechnical themes based on their interests.

Day three started with product and application training sessions, again divided into TH, DTH, and GEO. The day concluded with a factory tour at Robit's Lempäälä facilities.

"DD was, once again, a great way to strengthen the Robit Family spirit. You can't overestimate the value of face-to-face encounters, exchanging ideas, and fruitful dialogue between people from all over the globe. And it was no one-way street either: Robit learned a great deal, too, during those three intensive days", says Robit's VP Distributor Sales, **Ville Iljanko**.

### The 2023 awards for Excellence in promoting the Robit brand granted at DD:

**Distributor of the Year:** Eurodrilling Center (Sweden)

**Top Hammer Distributor of the Year:** Suministros Guillemet (Spain)

**Down the Hole Distributor of the Year:** National Drilling Equipment (Australia)

**Geotechnical Distributor of the Year:** Norsk Pumpeservice (Norway)

**Fastest Growth Distributor of the Year:** Nasco Industrial Services & Supply (USA)

**Congrats to all the winners!**





Get to know

## MARTÍN RODRIGUEZ



**While not a new face at Robit – he joined the company back in 2019 as Regional Sales Manager in Lima, Perú – Martín Rodríguez took on a new role as Distributor Business Manager, Latin America (LATAM) in December 2023.**

**What do you mostly focus on in your new role?**

As Distributor Business Manager LATAM, my focus shifted from local Peruvian clients to clients from all over South and Central America. Generating new connections with our distributors is essential for evaluating strengths and opportunities for each market we participate in.

**How would you describe the role of distributors in Robit's business?**

Our partners in each country have the difficult task of representing Robit with their clients, always needing to be close to our values and objectives, in addition to our assistance in carrying out tests and visits for the proper development of our activities. This represents a great challenge for us in a large region like LATAM.

**What do you see currently as the key challenges in the industry?**

As we all know, our markets are increasingly competitive due to the presence of more players and new industry demands for quality, prices, and more assistance. This poses a huge challenge to our operations and the way we engage with customers, but, as stated in our values, *We drive the change* and *We serve with speed!* We must adapt to meet the needs of our clients, especially with our knowledge and quality of materials, which are highly appreciated by users of Robit tools.

Get to know

## DUANE KUKARD



**Duane Kukard has been with Robit as Area Sales Manager in South Africa since July 2023. He has worked in the drilling tools market for over 20 years. Duane is happily married with two beautiful kids, an 18-year-old son and a 9-year-old daughter. In his spare time, Duane loves to play golf and padel with his wife.**

**How did you end up working for Robit?**

In a previous job, we sold Robit equipment and I learned that Robit has great Top Hammer and geotechnical products and that Robit always stood behind their brands. While working for a competitor I got an opportunity to join Robit, was very excited as I knew the brand and the value it gives to the customers.

**Is there anything about Robit that you think differs from your previous employers?**

Customers' needs come first. Service, product value, and stock availability. A direct line to decision-makers.


**As an Area Sales Manager, what are your key responsibilities and goals?**

Customer service, stock availability, growing sales, growing the exposure and value of the Robit brand in the market.

**From your viewpoint, what does the future look like in the industry? What are the biggest challenges?**

The mining sector in South Africa looks positive and will expand, which will be positive for the drilling market. The challenges we face are low-priced products flooding our markets. That's why service and maintaining a strong presence with our customers are key in our market.





**Robit**  
**WAS**  
**HERE**

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