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Publisher Jan Hermansson







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PD*i* iacds

Words from the IACDS President

ADDRESSING SUPPLY CHAIN PROBLEMS WITHIN THE DRILLING AND CUTTING INDUSTRY

The construction industry as a whole, and the drilling and sawing sector in particular, Supply chain management often plays a crucial role within the drilling and cutting industry. When it is done right, it ensures that the projects come together in a smooth, efficient manner, meeting all the requirements and deadlines expected of the workers. However, as is the case with any sector within the construction industry, we face a myriad of challenges on a daily basis which often affect the supply chain. This leads to delays in the flow of materials and equipment, slowing the work and increasing the cost of production.

Shipping and transportation costs are another issue that often arises during work. Since the industry usually operates globally, with suppliers and contractors cooperating on an international level, any disruption of it, such as natural disasters, fluctuations in fuel price and increase in transportation cost, can have an immeasurable impact on the worksite's schedule.

On the jobsite itself, quality control and customisation demands are also frequently present. Due to the risk that the work in the drilling and cutting industry entails, as well as the specification of each worksite, the professionals must conduct and follow rigorous procedures to ensure that workers are adequately educated and protected and that the work is well done and durable. Both of these tasks require a thorough study and assessment, and, if not well planned, not only delay the supply chain but also lead to accidents on the jobsite.

On the other hand, there are environmental and regulatory concerns. As environmental awareness grows, so do the regulations that focus greatly on sustainability within the construction industry. While they are completely necessary, the adaptation to different regulatory frameworks, as well as the transition to sustainable practices and equipment take time and effort. This, coupled with the difficulty of the work, can slow down the supply chain in a significant way.

Finally, supply chain technology is another topic worthy of discussion. Many companies in the concrete drilling and cutting industry still rely on outdated supply chain management systems, with upgrading being a great cost that is not always affordable.

How do we fix those issues? The answer is quite complicated. One of the most important aspects is being able to forecast certain costs. Before, we used to order certain bits and blades uniquely; now however we tend to order more at one time. While it might lead to an overstock and increase prices, it is equipment with an extended shelf life, and it will last for many jobs to come. Additionally, having the estimated cost of the suppliers before the job also helps predict and mitigate certain problems.

The challenges we, as professionals in the industry, face are undeniable. However,



Douglas Walker, president of IACDS

we must not shy away from them. Often there is a lot of 'trial and error' that takes place while we figure out the best solutions. By addressing these issues through innovative solutions and best practices, companies in this sector can streamline their operations, reduce delays, and enhance their overall performance.

As the industry evolves, so do we, and, by tackling those issues together, we are sure to come forward with better knowledge than ever before.

PDi associations



In memory of Horst Wapler

Horst Wapler, a well-known industry professional, passed away after a long illness in July of this year. Horst Wapler was the managing director of Fachverband Betonbohren und -Sägen Deutschland e.V. from 1997 to 2001. Later, he also became a member of the board, and, after his retirement, an honorary member of the IACDS. During his career, he strongly engaged in international cooperation and maintained a connection to the IACDS as a delegate. He organised and successfully managed numerous IACDS meetings in Germany, Austria and Switzerland. His passion was the development and establishment of the industry Diamond Award. Initially, it was organised at the national level among members of the Fachverband. Later, it became a worldwide competition. With this award, the IACDS still honours complex and innovative projects for controlled dismantling from all over the world. The IACDS and PDi magazine would like to honour his contribution to the concrete cutting community and expresses their deepest condolences to his family. Horst Wapler will always be remembered as a good man who was a passionate and devoted professional.

Husqvarna strengthens its diamond tools offering in the UK

Husqvarna Group's Construction division, a leading supplier of equipment and diamond tools for the construction and stone industry, has announced it has agreed to acquire the Total Diamond Products business.

Following Husqvarna Group's acquisition of the German based company Heger, Husqvarna Construction has looked to further strengthen its position in the diamond tools market for professional contractors in the UK by signing an agreement to acquire the assets of Total Diamond Products. Based in Essex, Total Diamond Products is a family run business specialising in bespoke diamond core drill bits and blades, machinery and associated items. Total Diamond Products has built up a reputation for quality, value and service during more than 10 years of being in business.

"Total Diamond Products will bring extensive knowledge and professionalism to the UK Husqvarna Construction team. Their wide range of high performance and quality diamond tools, high level of service, and short delivery time will add significant value to our customers," says Andrew Miles, Husqvarna Construction country manager, UK and Ireland. Closing of the transaction is expected to occur during December 2023, subject to customary closing conditions.





International organisations strengthen cross border safety in industrial cleaning

The international organisations that work daily to promote safety within the industrial cleaning have expanded collaboration on cross border safety in the industrial cleaning sector. The SIR in the Benelux and DIRV, WJA, ALTAP, S3C from the respective countries (Germany, UK, Spain and France) signed a letter of intent on 11 October 2023, during the Pollutec trade fair in Lyon, France.

International cooperation

Safety goes beyond borders, and the goal is to further promote safe work practices in the industrial cleaning sector at an international level. Therefore, the above mentioned organisations, which make up part of EWJI, are committed to expand international cooperation. The next step in this collaboration is the mutual recognition of each other's work instructions and safety procedures established by the mentioned entities. In this way, the organisations acknowledge, by signing the letter of intent, the international safety procedures and work instructions for safe work that are understandable, feasible, and acceptable.

About EWJI

The European Water Jetting Institute, EWJI, was created following the model of similar organisations at European level, to establish an umbrella organisation bringing together national associations, contractors, suppliers and prescribers of the industry. The key goal for EWJI is the development and standardisation of services and products related with water jetting, in whatever field of application it may be used.







DESIGN





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HAVE THE DARK AGES RETURNED?

My company publishes four trade magazines, two are Swedish, one international and one American, and I write an editorial column in every issue of all these magazines. I've been having looking back at my editorials since the end of 2019 and I can identify a marked difference in tone. They have become darker and darker since then.

The more pessimistic tone of the columns started when the pandemic gripped the world. To date, an estimated 18.2M people have lost their lives due to Covid 19. To put in perspective, the Asian flu of the late 1950s, claimed 1.1M lives; the Hong Kong flu in the late 1960s claimed roughly the same number whereas the Spanish Flu epidemic killed between 50M and 100M in the 1920s. But there has been nothing like Covid 19 as the pandemic paralysed the global economy for a large part of 2020 and 2021. Through government support packages, however, many countries were still able to manage quite well.

After we had recovered somewhat from the pandemic, then the next crisis came when Russia invaded the Ukraine. The war became the starting point for extensive economic problems which are rooted in the energy supply to Europe in particular. Inflation started to rise in one country after the other, and now recessionary forces are facing many countries. The use of high interest rates to tame inflation is now hitting the construction industry hard. This, naturally, has had a dampening effect on contractors in our industry sector when it comes to investing in new equipment.

In Sweden, where I live, we are also struggling with our own internal problems. Criminal networks in the country are at war with each other, which has resulted in a series of shootings where not only the criminals themselves become victims, but ordinary innocent people who happen to be in the wrong place, at the wrong time, have also been shot and killed. Added to this are several burnings of Islam's holy book, the Koran, which has caused many in the Islamic world to turn against Sweden, with Islamic fundamentalists calling for attacks on Swedes. Recently, two Swedish football supporters were shot dead in Brussels in connection with a football game.

The Swedish Freedom of Expression Act allows the burning of holy scriptures, flags etc. For my part, I admit that I find it offensive and completely unnecessary to burn any kind of book that means a lot to someone else. I just don't see the point. It is an offensive act but I support that all people have the right to have an opinion and express it. It is a human right that should exist in all states. But as it has become the case in Sweden, the fact that just one person, exercising a right under this law to deliberately cause offense and incite hatred against an ethnic group is unacceptable. The very act has caused innocent Swedes to suffer and pay the ultimate price. Some acts have actually been carried out by Muslims to deliberately provoke a backlash!

As if this was not enough, Hamas chose to carry out a terrorist attack on Israel where many innocent people were killed and kidnapped. This has resulted in an Israeli invasion of the Gaza Strip where many more innocent Palestinians have been killed, with a real danger than the situation may escalate throughout the region.

All these occurrences mean that it's hard to find positive things to write about in my column, but I'll try. In this issue of PDi, we talk about, among other things, the Indian Demolition Association's second edition of its national convention and Demtech trade show. Riverbends Publishing, LLC, PDi and PDa Magazines



are media partners for the second time and we greatly value our participation. The conference and exhibition were a real success and was held in Bengaluru at the end of September. More the 600 delegates attended the two day conference and trade show.

There is more about this in a separate article inside the magazine.

Jan Hermansson Editor-in-Chief jan.hermansson@pdworld.com

PDi business



Hilti Group says its positive momentum continues

The Hilti Group has announced that it has increased sales by 11.3% in local currencies over the first eight months of the year. Growth amounted to 5.0% (€4,487M). At €485M, the operating result was 18.9% higher than during the same period last year.

In Europe, sales growth in local currencies was 11.9%. In the Americas, the Hilti Group saw an increase in sales of 11.9% and the Asia/Pacific region posted double digit growth (+16.5%) as well. The Eastern Europe / Middle East / Africa region saw, as expected, a year on year sales decline of -2.3%. The appreciation of the Swiss franc against all major currencies led to a negative currency impact of 6.3 % points on sales growth.

"These results are in line with our expectations. While the overall supply chain

situation is rapidly stabilising, the construction market outlook remains uncertain and varies in different parts of the world. Despite this uncertainty we continue with our long term investments to strengthen our company strategically," explains CEO Jahangir Doongaji. At €485M, the operating result was 18.9% higher than in the previous year. Net income increased less noticeably to €369M (+17.1%), due to the appreciation of the Swiss franc and increased interest rates.

Following the particularly strong level of sales growth during the last four months of 2022, the Hilti Group expects the sales and operating result growth to come down by the end of the year, with sales growth levelling out at high single digits in local currencies.



Hillhead 2024 welcomes back industry favourites

Hillhead 2024 is set to build on the momentum of its record breaking 2022 event with many leading OEMs already signed up for the biennial quarrying, construction and recycling show. Exhibitors include, among others: Volvo (SMT), Komatsu, JCB, Caterpillar (Finning), Terex Group (Powerscreen, Finlay, EvoQuip, MDS, and Terex Washing Systems), CASE, Sandvik, Hyundai, BELL, Liebherr, Develon, Bomag, LiuGong, SANY, Wirtgen, McCloskey, Lippmann, Astec Industries, Telestack, Hitachi, Metso (McHale Plant and Duo), CDE, Kubota, Takeuchi, Merlo, GIPO, Wacker Neuson, McLanahan, Anaconda, Rokbak, Superior Industries, Yanmar, Weir Minerals, Ammann, Conn-Weld, Pronar, Keestrack, Bobcat, Mecalac, Isuzu, Hidromek, and Rubblemaster.

Event director Richard Bradbury explained: "The level of interest this year has been unprecedented, and we're delighted to be able to provide a range of new opportunities for exhibitors in our expanded Showground Pavilion." The full exhibitor list will be released at www.hillhead.com at the same time as visitor registration goes live this November.

Hillhead 2024 will take place at Tarmac's Hillhead Quarry, near Buxton, Derbyshire, from 25-27 June. Expressions of interest in exhibiting should be directed to event manager Harvey Sugden: harvey.sugden@qmj.co.uk





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The BR380JG-3 is your new Komatsu jaw crusher. Highly productive and efficient, it features a fully automatic discharge setting adjustment system. With an inlet size of 1065 mm x 550 mm this 35 tonnes-class crusher can deliver a maximum treatment capacity of up to 240 t/h. What's more, the BR380JG-3 has a unique CO_2 offsetting scheme, making it the first truly environmentally friendly crusher in Europe.



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PDi EDA



Commitment and recognition of talent within the industry

On the 18 and 19 October, I had the pleasure of attending one of the biggest events of the demolition industry: the World Demolition Summit 2023. Celebrated in Toronto, it was quite a flight for the European Demolition Association. However, once we stepped into the venue, we instantly knew that it was worth it!

The environment, as well as the warm welcome we received, was impressive, as professionals from all around the world gathered together to discuss the industry, make connections and exchange knowledge. Topics like environmental impact, issues and challenges in the workforce field, as well as different demolition methods, were presented in a number of case studies.

Thus, the variety of themes has allowed us to both share our experiences and acquire knowledge about topics that, otherwise, would not be so easily obtainable. One particular encounter took the stage during the event, namely the World Demolition Awards 2023. Dozens of companies have competed in different categories, ranging from innovations in tools and attachments to recycling and environmental developments.

It was of great pride for us to discover that many of the EDA members took part in the initiative and have been pronounced winners with six companies, in particular, receiving awards in several categories. Their work is a testament to the ever evolving and forward thinking nature of the demolition industry, which continues to redefine what's possible in the world of deconstruction.

Now the EDA would like to make its contributions to the cause! This is why, starting this 2024, we are creating the 'Circular Economy in Construction Awards'. This initiative is aimed at a very specific segment: the students, that will one day become industry professionals. The students from all around Europe, on behalf of different national associations, will be given a chance to present their Bachelor, Master or PhD thesis at the EDA Annual Convention 2024. By creating these awards, the EDA strives to create a connection between the companies, public institutions and future industry professionals, giving them an opportunity to become acquainted, first hand with what the sector is really like. It is also a great incentive for the students since their hard work and effort will be recognised on an international level.

Not only events like those mentioned showcased some of the most exceptional achievements in the demolition industry. All the companies and industry professionals participating in them have demonstrated their unwavering commitment to innovation, safety, and environmental responsibility.

They serve as recognition of their accomplishments and as an inspiration for the industry to continue striving for excellence in the years to come.

About EDA

The EDA was founded in 1978 and is the leading platform for national demolition associations, demolition contractors and suppliers. The EDA has a strong focus on developments in Europe, which are of interest to the demolition industry.

info@europeandemolition.org www.europeandemolition.org



Stefano Panseri, President of EDA, European Demolition Association

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PDi business



In recognition of its commitment to communities and sustainability across the globe, Doosan Bobcat (Bobcat) employees and members of its leadership team have been celebrating the company's support for nearly 100 organisations and municipalities through volunteer efforts to benefit the places where Bobcat employees live and work.

On 12 September 2023, more than 1,000 employees in 12 countries across Bobcat's global footprint participated in company organised projects, volunteering thousands of combined hours. "As an organisation, we aim to create positive social impact to enhance the communities where we live and work, as well as benefit our neighbours," said Scott Park, Doosan Bobcat CEO. In Dobris in the Czech Republic, where Doosan Bobcat's headquarters for Europe, the Middle East and Africa (EMEA) are located, 179 executives and employees participated in activities including a city and forest cleanup project; bush and tree planting; fence painting and preparing a surface for a children's playground. Volunteers used a fleet of Bobcat equipment including skid steer, compact truck and wheel loaders with various attachments to help in the projects, making tough jobs easier, while increasing efficiency and productivity.

Representatives of the town of Dobris and community employees joined Bobcat staff in these volunteer efforts.

Projects varied across all 15 of Bobcat's EMEA business sites and involved 407 employees serving a combined total of 949h on behalf of their local communities. The tasks included recycling projects, litter picking and a wildflower meadow restoration project, as well as various donation projects such as blood donation, food donations for charity organisations and money donations to fund local fire brigades.

Bobcat employees from around the world participated in the initiative, encompassing the Europe, Middle East, Africa, North America, Asia, Latin America and Oceania regions. The global effort supports Bobcat's Environmental, Social and Governance (ESG) commitments to community engagement, sustainability and responsible growth as an organisation in the communities where its employees live and work.



From the left: Markus Nilsson, Peter Dovrell, Fredrik Segerström, Stefan Stockhaus, Richard Aulin, Karl Serneberg, Lotta Barclay, Nicklas Bardh, Monika Bozic, Christian Yanes, Ernö Craciun

STEELWRIST RECEIVES AWARD

Steelwrist has received Sweden's 'Best Managed Companies' recognition for the fourth year in a row and is now a gold member. 'Best Managed Companies' is a quality award given to private Swedish companies based on criteria that assess strategic direction, operational capacity, corporate culture, and financial development. "This award is again the result of the massive effort by the Steelwrist team around the world. We are now present in 19 countries, but we still maintain our very specific Steelwrist culture within the company. We feel that we are extremely well positioned for the future, and it is with great pride that we receive this gold level Best Managed Companies recognition," says Stefan Stockhaus, Steelwrist CEO.

"This year, we welcome five companies as gold members after receiving the award four years in a row. It's inspiring to see so many companies continue to invest and strive towards their goals," says Therese Kjellberg, partner at Deloitte which is responsible for Best Managed Companies in Sweden. Best Managed Companies was founded by Deloitte in Canada in 1993 and has since been established in over 20 countries worldwide.

MEISTERWERK.







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EVENTS

CICEE SEA 2023 (Changsa International Construction Equipment Exhibition Sub-Exhibition in Southeast Asia) 29 November – 1 December, 2023 Malaysia International <u>Trade Exhibi-</u> tion Centre (MITEC), Malysia

IACDS ANNUAL MEETING

23-25 January, 2024 Las Vegas Convention Centre Las Vegas, USA www.iacds.ora

WORLD OF CONCRETE 23-25 January 2024

Las Vegas Convention Center, Las Vegas, USA www.worldofconcrete.com

THE ARA RENTAL SHOW February 19-21, 2024

Ernest N. Memorial Convention Center, New Orleans, USA www.arashow.ora

ON MEETING

March 22, 2024 Postbahnhof, Station, Berlin, Germany www.fachtagung-abbruch.de/en

GIC EXPO 2024

April 18-20, 2024 Piacenza Exhibition Center, Piacenza, Italy www.gic-expo.it

INTERMAT 2024

24-27 April, 2024 Villepinte, Paris <u>Nord,</u> www.intermat.fr

IFAT 2024

13-17 May, 2024 Munich Exhibition Centre, Germany www.ifat.de

EDA ANNUAL CONVENTION

13-15 June, 2024 Hilton Begrade Hotel, Belgrade, Serbia www.europeandemolition.org

HILLHEAD 2024

25-27 June, 2024 Hillhead Quarry, Buxton, United Kingdom

www.hillhead.com



HD Hyundai Infracore wins large orders

HD Hyundai Infracore has won large scale orders from customers in Saudi Arabia and Brazil and will be supplying a total of 131 Develon excavators and wheel loaders to meet these orders. 30 x 53t excavators and 50 x large wheel loaders will be supplied to two Saudi Arabian construction companies and used for the Neom project.

With the Neom city project in progress, demand for large construction equipment has been increasing. To meet this demand, HD Hyundai Infracore has been implementing individual strategies through its Dubai office and new dealership openings near Neom city. Additional service personnel have been added to ensure these latest deals were secured. Including recent orders, HD Hyundai Infracore has recorded a total of 846 units sales in Saudi Arabia.

Brazil also placed orders for 51 Develon excavators to meet its public infrastructure

investment demand. Among the orders, 22 large excavators (80t and 53t) will be used for the railway construction project in Mato Grosso, and 29 x 14t mid-sized excavators will be used for the public bidding project in Rio Grande do Sul. A special feature of the Rio Grande do Sul project is that Develon will be providing 14t excavators to its client exclusively, as their request was to purchase equipment mounted with proprietary engines for better maintenance.

A representative of HD Hyundai Infracore stated that the company continues to be successful in winning orders for Develon products from large global construction companies and will use this as an opportunity to expand its market share for large equipment in other similar markets around the world. At the same time, HD Hyundai Infracore is engaging in various marketing activities on and offline to enhance Develon's brand presence globally and to strengthen its sales network.

Midi excavator wins Good Design Award

Yanmar Compact Equipment's zero tail swing midi excavator, the ViO80-7, has been declared a winner in this year's prestigious Japan Institute of Design Promotion's 2023 Good Design Award.

Designed for the needs of the Japanese market, the Vi080-7 belongs to the 8t class, yet follows the concept of a mini excavator, enabling precise tasks such as turning in narrow spaces and digging in narrow trenches. Its Yanmar engine and ViPPS2i hydraulic system combine to offer a 15% improvement in excavation speed when compared to the previous ViO80-1B model. It has also achieved the highest three star rating in fuel efficiency standards certified by Japan's Ministry of Land, Infrastructure, Transport and Tourism and meets the criteria for 'ultra-low noise machinery'

Other innovations include the double lock quick hitch function, which allows attachments to be replaced using controls operated from the driver's seat, which increases the machine's work efficiency especially in sites

facing labour shortages. In receiving the award, the Vi080-7 gained recognition for its fusion of refined design tailored for narrow spaces and advanced functionality in a compact hydraulic excavator. It was praised for successfully combining user friendliness and efficiency.





Julie White new chair of Build UK

Julie White has been appointed the new chair of Build UK, succeeding Paul Cossell from ISG Ltd.

A prominent female entrepreneur in the construction sector, Julie White has since acquiring D-Drill from her father become a recognised voice in the construction sector. Julie, who was named Businesswoman of the Year in 2011, has now been appointed chair of leading industry body Build UK, having previously been president of the International Association of Concrete Drillers & Sawers (IACDS) and sat on the board of the Construction Industry Training Board (CITB) England. She is currently chair of the Drilling & Sawing Association (DSA).

Julie represented the construction industry on the former UK Prime Minister's Business Council, and over the past decade and a half, has become a well-recognised face and voice in the sector, speaking up on issues such as skills, apprenticeships, and the profile of the industry. As the chair of the Drilling and Sawing Association, she has been a regular attendee at the UK Prime Ministers Downing Street offices

An inaugural board member of Build UK which was established in 2015 to help bring specialist sub-contractors and main contractors together within the industry. Now, the organisation consists of businesses across the whole construction supply chain including clients, main contractors, specialist contractors, other trade associations and professional services, helping the sector to speak with one voice. It also offers information and support to members and is committed to driving forward the delivery of construction projects for the benefit of the industry, its clients, and the economy.

Julie was appointed at the organisation's AGM and will serve as chair for two years. Build UK chief executive Suzannah Nichol MBE said: "I would like to thank Paul Cossell for his leadership and support as chair during a challenging two years for our industry. We will continue our drive to transform the sector, working collaboratively to improve business performance, increase productivity, and recruit, train and retain talent. I'm delighted to welcome Julie White as our new chair and look forward to working with her to capitalise on the depth and breadth of our membership and provide a strong collective voice for construction."











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PDi business

Tyrolit strengthens US market position

At the end of September 2023 the Tyrolit Group, a leading player globally in abrasive solutions, has acquired all of the stock of Acme Holding Company. Acme Abrasives is a specialised abrasives manufacturer and provider based in Michigan and is now Tyrolit's seventh manufacturing plant in the US.

Schwaz, Austria 5 October 2023

The acquisition is a strategic move that will further expand the product portfolio for the steel and foundry as well as the rail industry. Acme Abrasives is one of the leading manufacturers in North America for hot pressed grinding wheels for the steel and specialty steel industry's grinding needs. Tyrolit will integrate Acme wheels in its portfolio of grinding and specialty abrasive solutions for industrial clients. Tyrolit CEO Thomas Friess comments: "We have built a successful global economic base that allows us to further pursue our strategic direction of business activities. The further expansion of our portfolio, especially for crucial industries like steel, foundry and rail, strengthens our operational competitiveness."

Commitment to high quality

"With the addition of Acme Abrasives we are aiming to optimise our customers' benefit and further utilise our global position. Acme has a long standing commitment to quality and efficiency and therefore perfectly aligns with our values. We are excited about the opportunity to serve our partners even better and offer high quality products and services for a wide variety of specific needs," explains Matthias Kuprian, executive board member, Metal Industries.





AQUAJET HIRES APPLICATION SPECIALIST

Aquajet, a leading manufacturer and supplier globally of innovative hydrodemolition technology, has welcomed Brian Gaede as an application specialist. Gaede, who has more than 12 years of hydrodemolition experience, will aid Aquajet customers throughout North America. In his role, Gaede will be responsible for training customers on best practices in a variety of applications and providing sales, technical and customer service support.

"We are thrilled to have Brian join the Aquajet team," said Aquajet North American business development manager Keith Armishaw. "Brian brings years of valuable industry experience to the table, and his knowledge will help customers in all aspects of hydrodemolition. As demand for hydrodemolition continues to grow in a wide variety of applications, Brian will play a key role in ensuring customer success."

Gaede joined the hydrodemolition industry early in his career at Midwest Mobile Waterjet, St. Paul, Minnesota. He started as a hydrodemolition operator, working with equipment from multiple manufacturers, and later added project management and safety officer responsibilities. Over the course of his career, he has trained staff on proper safety practices, equipment maintenance and hydrodemolition techniques in various applications. His years of hydrodemolition experience will be valuable to new and existing Aquajet customers looking to maximise the potential of their equipment.

Aquajet offers a variety of equipment from 'Aqua Cutter' hydrodemolition robots to water treatment systems to hydrodemolition pumps. Gaede's industry knowledge will guide customers through any obstacles and help them get the most out of their Aquajet products in all types of work.

"I'm ecstatic to relay what I've learned over the years to help Aquajet customers complete hydrodemolition projects as safely and efficiently as possible," Gaede said. "Hydrodemolition will continue to be more widely incorporated across a range of applications. It's crucial to have adequate manufacturer support from the introductory handshake until the work is complete. I'm excited to ensure Aquajet equipment runs optimally each step of the way."



José Cuadrado appointed managing director of Yanmar Compact Equipment, EMEA region

José Cuadrado has been appointed managing director of Yanmar Compact Equipment's Europe, Middle East and Africa (EMEA). In his new role Cuadrado is responsible for further developing the regional capabilities, as well as driving customer success. Together with his EMEA team he will play an important role in establishing Yanmar Compact Equipment as a global leader in the compact equipment industry. Cuadrado brings with him a wealth of relevant construction, industrial and automotive experience. In his most recent role Cuadrado was CEO of Irish 'ride and handling' specialists Timoney Technology. His earlier career included senior roles at prominent global organisations Ingersoll-Rand, Bobcat and CNH Industrial. Cuadrado joins the Yanmar Compact Equipment global leadership team, reporting to Giuliano Parodi, the company's global CEO.



Yanmar celebrates 55 years of mini excavator manufacturing

Yanmar CE's mini excavators are still proving themselves since the first model was produced 55 years ago. The ViO35 and all-electric SV17e are the latest iterations of a long line of Yanmar excavators, and since the turn of the millennia, Yanmar CE has striven for technical improvement. Increasingly, this has gone together with sustainability and tackling environmental concerns, with ever lower emissions.

Metso to acquire Häggblom

Metso has signed an agreement to acquire Ab A. Häggblom Oy, a privately owned Finnish engineering and manufacturing company. The company's key offering includes mining truck bodies and buckets. Häggblom's portfolio includes wear parts, truck body and bucket refurbishments, as well as related field services. Häggblom has partnered with Metso for several years in the manufacturing of truck bodies. The acquisition will broaden Metso's offering in bodies and buckets by providing complete end to end loading and hauling solutions and strengthening the company's position in the aftermarket.

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NEW HYDRODEMOLITION EQUIPMENT

In this year's special issue we have one big news from Aquajet System and two interesting site reports to share.

quajet has introduced the Revojet 270 high pressure pump. It is highly mobile and compact, designed for smaller scale projects. It's designed to pair with Aquajet's other compact robots for applications such as small parking garage renovation and industrial cleaning.

"Our innovation comes from constantly listening to customers to create new solutions for tackling their projects," said Roger Simonsson, Aquajet managing director. "As hydrodemolition gains popularity, customers are looking for ways to use the technology for more aspects of their work. Pairing the Revojet with our compact hydrodemolition machines gives contractors a powerful equipment arsenal for jobs in tighter spaces."

The new 270 comes with the 'Revo' system provides a wide range of functions for users to control and monitor the Revojet in a safe, user-friendly package. Its features include closed loop pressure control or rpm control and smart pressure regulating. The Revojet also has a mode that flushes the hoses without any nozzle mounted. Operators can easily set parameters and can see all important information in real time or view history of items such as the alarm list. The trailer unit weighs 3,500kg, making it light enough to be towed with a pickup or large SUV whilst a stationary Revojet unit is also available.

The Revojet has a standard configuration of 2,800bar and 401/min. For operations requiring more power, two Revojets can be parallel operated to increase pump power as a flexible alternative to a larger pump.

The Revo remote comes standard and, to increase flexibility, operators can leave the remote in place on the unit or detach it to control the Revojet from up to 300m away with extension cables. The main power system monitors the battery level and shuts down when critical to avoid discharging them completely. It also offers an adjustable auto shutdown timeout that can automatically turn off the main power after a certain period of inactivity to save battery life. The main power is also automatically kept on until the engine finishes its shutdown process.

In addition to the standard radio remote control, the Revo system is compatible with most remotes and high pressure tools on the market. When the robot is connected to the Revojet, everything works as one unit through the radio remote control. This allows operators to connect multiple pieces of equipment. The Revojet was designed to provide easy access for service and maintenance with two large hatches, one on each side of the machine, allowing workers access for routine resulting in less downtime, so the jobsite gets up and running faster when it comes time for service. For bigger jobs, Aquajet offers several larger pumps.





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Fort McHenry Tunnel hydrodemolition project

The Fort McHenry Tunnel connects the Locust Point and Canton areas of Baltimore. It stands out because it crosses under the Patapsco River just south of Fort McHenry. The four tube tunnel is a vital link in Interstate 95 spanning eight lanes and sees more than 100,000 vehicles pass through each day.

ith large structures like the Fort McHenry Tunnel comes considerable ongoing maintenance. A current project involves removing and replacing two conduits buried in a long wall in the ventilation plenum below the roadway. The conduits house the 15,000v cable that powers the tunnel facility, with the work also including concrete rehabilitation to the underside of the roadway slab and side walls supporting it. Hydrodemolition was specified for the project due to health and safety requirements in the tunnel, with the Maryland Transportation Authority selecting the contractor.

Freyssinet USA, part of the worldwide Freyssinet umbrella and a subsidiary of Vinci Construction, offers an array of products and services and used hydrodemolition techniques specifically for the project. Freyssinet Mid Atlantic operations manager Wayne Campbell conducted considerable research on hydrodemolition equipment options, including discussions with one of Freyssinet's sister companies that has extensive experience, ultimately choosing Aquajet.

The Fort McHenry Tunnel job involves a workspace barely 2m tall making powerful but compact equipment a necessity. Campbell formed a fleet of Aquajet machines featuring three 'Aqua Cutter' 410As. A 15 man crew used the Aqua Cutters to remove portions of the wall to access the cables and conduit. Each shift, they removed large amounts of concrete and replacing the conduit with the final step being to finish the repair with shotcrete.

Two robots run during the shift while the third is rotated out for maintenance. To get the Aqua Cutters to the worksite, Freyssinet lifted them in with a crane through access hatches. With the challenges getting equipment in and out of the tunnel, routine maintenance was performed inside the tunnel and can be completed during the shift without impacting production. The shape of the tunnel creates challenging angles on the work surface. It's a semicircle that turns vertical at the walls with only two short flat spots on each end. The rest of the area is like working in a pipe cut in half, creating an angle on which the robots travel. Freyssinet built a rail system to ensure the robots stayed on track during operation.

Key to the operation

Freyssinet uses hydrodemolition in the tunnel below the roadway during 10h overnight shifts, six of which are dedicated to hydrodemolition. The other four hours are used to set up, tear down and moving the mobile



The 15,000v cables and conduit wall had to be replaced.



Freyssinet representatives have travelled all the way from France and Norway to view the jobsite.

operation. The road is closed during the shift and then reopens to traffic in the morning. As a result, any equipment positioned on the roadway must be moved. An 'EcoClear' self-contained unit is also used mounted on a lowboy trailer. This setup allows the crew to pack up and drive off at the end of each shift. All hoses for the water and power run through fresh air vents from the roadway down to the tunnel basement.

The Freyssinet crew made a surprising discovery about the EcoClear once they had the system up and running. Their water source stems from a 25,000l tanker truck, and without recycling water, the crew would use about six tankers per shift, but they only use about one. This provides not only considerable time savings, but also cost savings in both water and fuel consumption. The EcoClear recycles the water five times during the work shift. Campbell anticipated losing about 40% of the water to the atmosphere during the process, but they're retaining nearly all the water by using in a closed loop system, in which they continually treat and recirculate the water. "The EcoClear is like a furnace in your house," Campbell said. "When it's operating, you don't have to think about it. You just check the sensors and let it run. In essence, it's become the centrepiece of this job. The tunnel is a mile long and we have no water source, no spigot, and no drain, so all water has to come and go with us, and the EcoClear is the key that makes that happen.

"This is a unique project with a straightforward task. My superintendent and I agree that this is not a complicated job. All we're doing is ripping out conduit and putting it back in, but there's nothing easy about it. You're on an island when you work at night. Since we're working outside of normal business hours, access to the outside world can be limited. As simple as this job is, this is one of the most difficult projects I've ever seen," said Campbell.

Only the beginning

The Fort McHenry Tunnel marks just the start of Freyssinet's hydrodemolition work. With its fleet of Aqua Cutters and EcoClear wastewater treatment system, Campbell's vision is to take on more projects and grow that aspect of the business. "My personal vision is that we just created the Freyssinet hydrodemolition division," Campbell said. "We have all the equipment necessary, three robots, three pumps and an EcoClear, so my vision is to send them out and put them to work."

Work on the Fort McHenry Tunnel began in April 2021 and has an expected completion date of June 2026.



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Atlas Copco portable air compressor takes the Egyptian heat

Egypt Gas has put the toughness of Atlas Copco's portable air compressors to the test during an extreme oil and gas pipeline sandblasting project in Upper Egypt.

In temperatures reaching 47°- 50°, with the air thick with dust and sand, Atlas Copco portable air compressors have been proving their mettle for the last five years in different sandblasting projects undertaken by Egypt Gas. The company has been providing its specialist pipeline installation and maintenance services throughout Egypt and the Middle East since 1983 and has been a customer of Atlas Copco for more than 15 years. For the past five years it has relied on an 'XATS 350' model for its maintenance works, sandblasting any material deteriorating due to rust, paint, or oil from steel pipelines.

The XATS 350 delivers 10bar pressure to the sandblasting unit, propelling compressed air through approximately 10m to 20m of air hose and a 9mm nozzle. Thanks to its robust design features, the unit is said to excel in the harsh environment of Upper Egypt region, running for 12h/day. Built to withstand the most extreme conditions, the compressor has been tested to perform optimally even in 50° making it the perfect match for Upper Egypt, where ambient temperatures lie between 47- 50°C in the height of the summer season. Besides these hot temperatures, dust and sandstorms are common during the spring and summer season in this region.

The XATS 350's heavy duty air filters remove dust and sand contaminants from entering the compressor, while an enhanced cooling system ensures reliable operations in scorching conditions. It's top mounted muffler further works to reduce fire risks and overheating. Egypt Gas says that its Atlas Copco unit is the backbone of its shotblasting operations and that it is used for 2,000h/year. Even when consistently faced with extreme heat, sand and dust throughout the last five years, Egypt Gas states that it continues to prove its resilience and efficiency.





LEHNHOFF AT KOMATSU 'DEMO DAYS'

At the Komatsu Demo Days in Cartersville, Georgia, the manufacturer showed the latest developments in construction machinery for its US customers together with other partners, including Lehnhoff from Germany.

For decades, Lehnhoff's quick couplers and attachments for the construction and building machinery industry have been an integral part of European construction sites. Now the company is aiming to establish itself in the US market as well. An opportunity for this came at the Demo Days of Lenhoff's long standing partner Komatsu. The advantages of the latest Komatsu excavators, equipped with the fully automatic SQ80V coupler from Lehnhoff, were presented to customers in the construction and demolition industry. A clear trend here is the increased use of larger machines from 30t, with a focus on demolition.

Lehnhoff's fully hydraulic quickcouplers from the 'SQ' series met with great public interest during the practical demonstrations. They were said to impress with their performance, flexibility and user friendliness. With a maximum oil flow of 550l/min per valve, the full power of the hydraulic attachments can be utilised. Thanks to the symmetrically arranged valve block, even hydraulic attachments can be picked up by 180°, giving users application versatility. Furthermore the low maintenance short stroke valves make on site maintenance much easier.

These advantages have been recognised by attachment manufacturer Montabert, whose dealer network in the USA Lehnhoff will use for the distribution of its quick couplers. "We are very proud to have found a well known and well connected partner in Montabert, with whom we can gain a strong presence in the US market," explains Simon Maurath, sales representative at Lehnhoff. At the Komatsu Demo Days demonstrations, customers were able to view the interaction of Komatsu excavators with Lehnhoff quick couplers and the Montabert sorting grab and hammer.

Mounted on the 35t Komatsu PC360 excavator, the currently largest fully hydraulic quick coupler of the SQ series, the Lehnhoff SQ80V, changed between hydraulic attachments, such as hammer, grab and pulveriser, as well as the different buckets, such as the Lehnhoff HTL35 or the Lehnhoff HG35 SH, which were also presented. The visitors saw how easily, smoothly and quickly the SQ80 coupler changed the individual attachments in operation from the cab. "We were also positively surprised by the attention the American public paid to the demonstrations with our SQ80Vs and the great interest they showed in us," says Simon. "This market is just starting to take off in the US."

For the Demo Days visitors, mainly customers from the demolition industry, saw that the SQ system is a compact and vertical valve system. Due to the compact dimensions, without protruding components that can be torn off, the system has been designed to be used safely and for a long time, especially in tough applications or at narrow angles. It has also been designed for easy maintenance with the valves being able to be replaced in less than two minutes in the case of service.

The Komatsu Demo Days were a complete success for Lehnhoff. "We take the positive feedback from the American demolition and mining experts on our SQ couplers as an incentive to help the American market achieve more efficiency and flexibility in operation with our reliable partners at our side," concludes Sebastian Denniston, product manager at Lehnhoff.



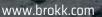
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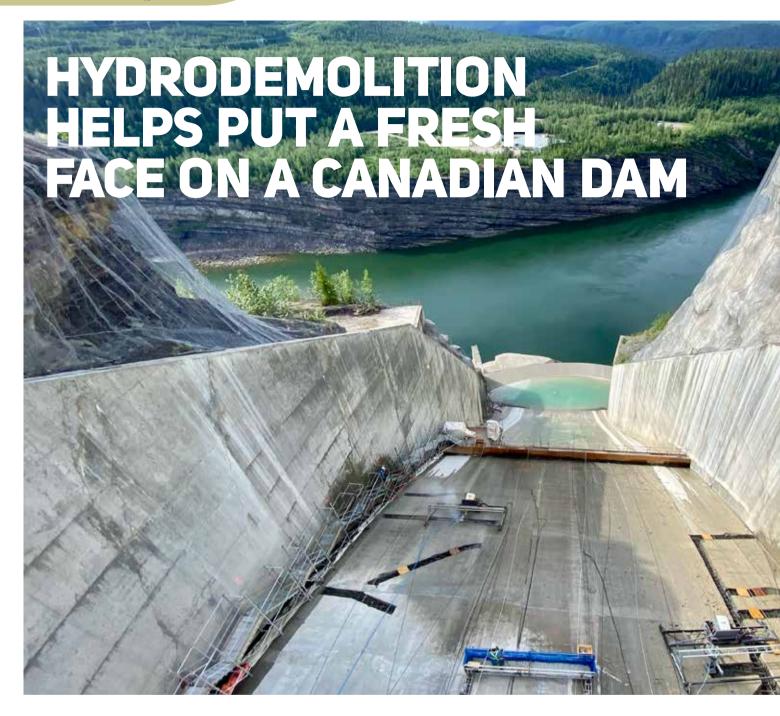
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PDi site report



At 186m, the W.A.C. Bennett Dam on the Peace River in northern British Columbia is one of the world's highest earth filled dams. The BC Hydro owned hydroelectric facility has the capacity to generate more than 13,000GWh annually, supplying more than a third of the province's power demand.

ears of water runoff and freeze thaw infiltration had left numerous cracks in the half century old dam's concrete spillway. In the summer of 2021, an extensive programme to repair the cracks and prevent further erosion got underway. Work progressed slowly, as the general contractor was using jackhammers to remove decaying concrete and prepare areas for repair pours. Sensing there might be a better

way to get the job done, the onsite staff of the project's surface preparation subcontractor Walco Industries, Inc., suggested that robotic hydrodemolition technology would help accelerate the repair process.

Walco Industries in Campell River

Based in of Campbell River, B.C., Walco Industries is well versed in applications of hydrodemolition on

a wide range of infrastructure. Though the spillway presented a number of unique challenges, the team was convinced that the approach would be far faster and efficient than conventional methods. Walco's team made a convincing case to the general contractor and owner of hydrodemolition capabilities and was asked to test the system on a 3m spillway crack. Using Aquajet 410v robotics and track system, along with a 1,379bar water

PDi site report





pressure system that had been used for surface preparation, Walco's team easily cut 25.4mm deep profiles into the deep concrete at various lengths, angles, and slopes, all to the owner specified International Concrete Repair Institute CSP 10 standard.

The hydrodemolition equipment accomplished more during the two day trial than had been completed through weeks of handwork. The results convinced the GC and BC Hydro to rethink the repair strategy for the summer 2022 construction season and use hydrodemolition to remove a 50.5m³ section of spillway. Because those cracks were located at 45° angles, Walco brought in two proprietary winch and spine hydrodemolition systems adapted to a platform that conformed to the slope. The winches were anchored to the spillway approximately 100m above the worksite, one winch per robotics system. The pumps were staged up on the roadway 200m away, while the operators of the robotics were able to work from a safe distance of approximately 25m from where the hydrodemolition was being done.

Two systems operating concurrently on two different segments of the spillway slope meant that good coordination was imperative. The angles during the removal were modified to create key cuts in the concrete to help with reducing the amount of removal needed to be done by jackhammer. The winch systems were used remotely by the operators overseeing the hydrodemolition robotics.

The demolition was completed in phases

After hydrodemolition portions were completed, the GC's team would do their modifications, adding rebar and fresh concrete. Due to the degradation from years of weather, exposure, and the large aggregate from the initial build, the project team frequently encountered spalling, which, in turn, added to Walco's overall scope of work.

All water was transported to site at the beginning of the project via water truck and there was enough storage capacity on site that no further water was required for the duration of the project. Multiple booster systems were needed to move dirty water from the flip bucket to the primary tank, then to the treatment equipment. The water was then stored until it was pushed up again to a 42,000l tanker. From there, the water was pushed to the high pressure pumps that fed the robotics within the spillway. Once the job was done, the treatment system would balance the water pH, remove turbidity, and prepare the water for safe discharge into a nearby forest.

All in all, the system proved very efficient, so much so that Walco crews needed to stand down for a few weeks so that the concrete replacement could catch up. This was due to BC Hydro's requirement that the spillway be back up and running within 10 days if needed. Those efficiencies were welcome, as the project team had to temporarily evacuate the area due to nearby forest fires and contend with unexpected hazards such as lightning and high winds. Still, hydrodemolition proved its value that summer, covering 63m³ and providing many lessons learned that will be applied to future projects.



If Europe and several other countries in the world, including China, are struggling with high inflation and the threat of a recession, India is going the other way, full steam ahead! A good example of the country's economic confidence and performance was the second edition or the IDA convention and Demtech 2023 tradeshow held at the end of September.

n Mumbai 2019, the Indian Demolition Association, IDA, was formed and the first edition of the Indian tradeshow Demtech took place with support from PDi and PDa magazines. Due to the Covid 19 pandemic, it would be a four year wait before the second edition could take place. But on 28 and 29 September 2023, the Demtech convention and tradeshow was held at White Petals in Bengaluru. Over 500 delegates attended the event with 45 companies exhibiting.

A complete success

"The second edition of Demtech was a complete success. We had representation from 10 different countries and the expo had 45 exhibiting companies. At the first edition of Demtech, all exhibitors had very small stands, but this time all had full size booths showing their products. Outdoors we had a demo area. This proves that the Indian demolition industry is in search of avenues to network, connect and grow. While the first edition was a path breaker, the second cemented the fact that the demolition, recycling and remediation industry is ready for such events," said Mohan Ramanathan, IDA founder and former chairman of the association (a new chairman, Shriram Matte, was elected at the 2023 meeting).

The first day of the event began with the inauguration by Demtech's principal guest, K. Subramanian, (executive vice chairman of Afcons Infrastructure Ltd). After the traditional lighting of the lamp to commence the event, welcome addresses were delivered by Mohan Ramanathan, IDA founder and first chairman, and Jan Hermanson, editor in chief, PDI and PDa magazines, Sweden and USA. After the introductions and addresses the proceedings got underway.

Interesting keynote lectures and case study presentations

Mohan Ramanathan and Kate Bester, Advanced Construction Technologies, India and Jet Demolition, South Africa, respectively, moderated the keynote lecture. The topic was, 'A perspective on the past, present and future status of demolition and recycling in India and worldwide'. A second keynote lecture was given by



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28 - 29 SEPTEMBER, 2023 White Petols, Poloce Grounds, Bengaluru, Ir



Shriram Matte, Matte & Associates, was elected new chairman of IDA at the convention.



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28 - 29 SEPTEMBER, 2023 te Petals, Palace Grounds, Bengaluru,



Mohan Ramanathan founder of the Indian Demolition Association, the man behind the Demtech tradeshow and first chairman of the association.



A great event held at White Petals in the centre of Bengaluru, attracting over 500 delegates and 45 exhibitors.

ALL PICTURES FROM THE EVENT CAN BE DOWNLOADED HERE: HTTPS://WWW.DEMTECH.IN/DEMTECH-2023/GALLERY





Anurag Sinha, EIL, who spoke on the subject of, 'C&D waste management for businesses, community and environment'. A sponsor presentation was carried out by Torsten Ahr, vice president of Epiroc, representing Epiroc Mining India Ltd.

The day continued with a case story presentation from Jigar Cheda and Joe Birkman from Edifice Engineering and Jet Demolition respectively. Another keynote lecture was on the topic, 'Engineering challenges behind demolition of high rise structures', given by Dr. Anil Joseph, Geo Structures, Kochi, India. The day continued with a panel discussion on the subject, 'Why should demolition companies decarbonize?'. The moderator for the panel discussion were Kate Bester from Jet Demolition, with the panellists being Amitabh Kishore, EIL, Torsten Ahr, Epiroc, Gerald Badegruber, Rubblemaster, Amol Sinha, Terex, Marcel Vening, Demarec, Deepak Raina, Metso, and Mohan Ramanathan, IDA.

The day continued with a presentation from the IDA Committee members, other presentations, lectures and case studies. First out was a sponsor presentation from Edifice Engineering, and a keynote lecture from Arun Kumar, BIS, on the latest updates on BIS Codes in demolition and recycling. Kannan Paulthurai from PK Unique Projects Pvt. Ltd shared an interesting case study which was followed by a sponsor



A more casual look at some of the organisers the day before the convention and tradeshow started. From the left, André Hermansson, Riverbends Publishing and PDi Magazine, Jan Hermansson, Riverbends Publishing and PDi Magazine, Mohan Ramanathan, founder of IDA and Demtech, Fazrulla Basha, IDA Committee Member. presentation by Ashish Markande from Hilti India Pvt. Ltd. Shriram Matte from Matte Associates described a case study with the headline, 'Challenges in bridge demolition jobs'. A special presentation on the topic of, 'Laser welding of diamond tools', was given by Arthur Becker, Dr. Fritsch, India. Another special presentation had the heading, 'Controlled demolition with right power and diamonds', were given by Johnson Periera from Lissmac. The last keynote lecture on the first day was called, 'Offshore structures- decommissioning, demolition & restoration,' being given by Ramalingam Iyer. The day finished with a sponsor presentation by Anand Singh from Volvo CE.

Due to a major industrial dispute between the local state authorities and local government employees in Karnataka state where Bengaluru is situated, transport sector employees began industrial action at 01.00am the following day. Due to this, the conference programme was amended, with the first day of the conference becoming longer than planned. However, spirits remained high among the delegates. The day drew to a close with a band playing, dinner and cocktails. (Comments and feedback are available to be viewed on the PDi website).























































































Despite fears that many trade fair visitors would find it difficult to get to there due to the industrial action outlined above, a number of delegates made it to Demtech on the second day. This started with a large panel discussion on the subject, 'Future of demolition in India', which was moderated by Jan Hermansson from PDi and PDa magazines. The panellists were Akhil Jain, IDA, Sanjay Phadke, Industrade, Torsten Ahr, Epiroc, Christophe Jarrin, Stanley, Senthil Kumar, Husqvarna, and Johnson Periera, Lissmac. The panel discussion proved to be very popular and brought a lot of interesting questions and ideas on the table.

The day continued with a recap of the event held by Fazrullah Basha, IDA, followed by a 'Vote of thanks' facilitated by Piyush Gandhi, IDA. The new incoming IDA chairman, Shriram Matte was announced, with the outgoing chairman and IDA founder Mohan Ramanathan, welcoming the new officers of the IDA. Attendees were presented with certificates and mementoes of Demtech 2023 which was concluded with the singing of the national anthem of India.

Next edition of Demtech in New Delhi, November 2024

"IDA committee members would like to offer a massive thanks to all those who attended and a deep gratitude



A well-attended Demtech tradeshow ran parallel with the convention for two days. Some 45 companies exhibited indoors; there were also an additional outdoor demo area.

to all our sponsors. Next meeting will take place probably in November 2024 in New Delhi," said Mohan Ramanathan. In the meantime, for detailed information on Demtech 2023, photos and videos, please visit our site: www.demtech.in. Once again when attending Demtech and visiting India, I could not get over how wonderful the people of India proved to be. For those of you who did not attend this year, make sure to be there next year.

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UPDATED ELECTRIC POWERED MINI EXCAVATOR

The DX20ZE-7 mini excavator is the first mass produced electric powered excavator manufactured by Develon. The 2t excavator has been designed to combine low noise and zero emissions with the features and performance enhancements found on the DX-7 Series family of mini excavators.

"The DX20ZE-7 is designed to meet a growing demand for electric machines," says Stephane Dieu, excavators product manager for Europe at Develon. "As compact equipment, such as mini excavators, has a higher tendency to work in cities and residential areas, where it has proximity to other workers, it has a great advantage over the diesel counterpart due to less noise and no emissions."

Retractable tracks allow the new excavator to pass through narrow passages and entrances/exits, making it ideal for working in confined spaces or indoor applications such as demolition and construction. Once the excavator reaches the work area, the operator can expand the tracks for better stability and lifting capacity. With its compact dimensions, the DX20ZE-7 has



been designed to provide a solution for construction and rental companies working in sensitive areas where low noise or nighttime work is necessary.

The DX20ZE-7 is powered by an in house developed 20.4kWh lithium ion battery pack, with all of the electrical system and components on the machine optimised for work in harsh environments. A quick charger system is said to restore 80% of the battery power after only one hour and 20 minutes of charging, while the on board charger restores the maximum charge after eight hours of charging. Telematics are standard on the DX20ZE-7 mini excavator meaning that operators and dealers can remotely monitor the machine's health, location and productivity from an app or website. Telematics have been developed to help owners minimise equipment theft and allow for machine tracking as well as avoid unauthorised use of the machine. It further enables owners to see when maintenance is due, customise alerts to schedule, track oil pressure, operating temperature etc and use data to train operators for maximum productivity.



3D machine guidance and payload functionalities for excavators

'Smart Construction 3D Machine Guidance' aims to provide customers with a simple and accessible 3D GNSS system and dynamic payload metering. This launch aligns with Komatsu's continuous commitment to provide customers with intuitive technological solutions that improve safety, enhance productivity and efficiency, and reduce carbon emissions in construction operations.

Drawing on a decade of experience and understanding of the intelligent machine control system, Komatsu now offers its kit as a simple and flexible technological enhancement for a broad range of standard Komatsu machines as well as mixed fleets. Jim Venerus, product marketing general manager said: "Customers tell us that productivity, real time jobsite information, and keeping pace with digital transformation are some of their biggest challenges today. Komatsu has developed the 3D Machine Guidance kit in response to these needs."

The kit provides an accessible way to add 2D and 3D machine guidance to any crawler or wheeled excavator from 13t to 120t. The kit can be customised with various optional additions enabling it to better accommodate each customer's machine configurations and operating conditions. Consistent with Komatsu's ongoing dedication to improving jobsite safety, a 3D safety zone feature has been integrated into the system. This allows customers to create and import avoidance zones. The feature serves as a preventive strategy, sending alerts to operators when they are in proximity to hazards such as powerlines, underground utilities, walkways, or public roads. The 3D kit's automatic file conversion is compatible with most common design file formats. This ensures a seamless integration with customers' existing 3D systems from different manufacturers.

In addition to the standard machine guidance functionality, the 3D Machine Guidance kit comes with an integrated payload meter option for Komatsu machines. This feature allows for weighing of materials, eliminating the need for manual checks and interruptions. This boosts productivity by ensuring each truck is loaded to its optimal capacity without risking overload.

Besides being a standard 3D GNSS system, the 3D Machine Guidance kit is also integrated into the Smart Construction suite as a first step towards optimising the earthmoving process. It works as an IoT tool automatically collecting terrain and payload data, which can be visualised and analysed using Smart Construction solutions and expert advice. "Combined with Komatsu's connected services, the 3D Machine Guidance kit meets the common challenges of our customers today to deliver productivity gains via 2D and 3D machine guidance, real time connectivity, and the ability to make data driven decisions," concluded Venerus.

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KOBELCO STRENGTHENS ITS MINI EXCAVATOR RANGE

Kobelco Construction Machinery Europe B.V. (KCME) is pleased to launch its brand new SK26SR-7 and next generation SK28SR-7

Mini excavators are frequently used for landscaping, utilities and small construction or industrial projects and operators can often find themselves working long hours inside the cabin. As a result, the two new models follow Kobelco's 'Performance x Design' concept, which promotes superior performance, a more comfortable cabin and improved working environment. Ideal for jobsites where space is restricted, the models have short radius designs. Importantly, the machines' short tail swing provides accessibility when working next to walls or digging close to ditches providing a smaller operating footprint.

The SK28SR-7 benefits from an increased engine output of 19kW and an improved hydraulic system. For increased versatility, the quick hitch piping has also been extended by 200mm for easy connection to a wide range of attachments. The removable travel levers are designed to improve accessibility to the main control valve, which helps to facilitate maintenance and servicing of the hydraulics.

The angle dozer (optional) is available on the SK28SR-7 and provides 25° of left and right angle movement for clearing, grading and backfilling. The

floating dozer (optional) is designed for the cleaning of the ground surface without having to adjust the dozer height. Importantly, the new SK26SR-7 also has a low transport weight of 2,580kg (cab) and 2,420kg (canopy), making it easily transportable on a trailer with a maximum capacity of 3,500kg.

Inside the cabin, features include a mechanical suspension and reclining seat including headrest, wider wrist rests, DAB+ radio, USB, Bluetooth and hands free telephone function, smartphone, and cup holders. The multi colour display provides important machine information, including fuel and water temperature, service intervals and adjustments to the hydraulic oil flow to the attachments. Quick access to this information can help ensure timely maintenance, reducing the risk of unexpected breakdowns and optimising the machines' lifespan.

Both the SK26SR-7 and SK28SR-7 also benefit from air conditioning and in addition, the models are equipped with Kobelco's 'iNDr' (integrated noise and dust reduction cooling system) for noise suppression that promotes low noise, engine cooling, reliability, minimal machine downtime and a more comfortable working environment for the operator. Commenting on the introduction of the new Kobelco SK26SR-7 and the relaunch of the SK28SR-7, Kobelco product marketing manager, Wesley Elverding, said: "Our mini excavator line up is extensive, but we recognised that the 2.5t segment could be further enhanced to better meet customer requirements. As part of our commitment to continuous improvement, the SK26SR-7 and SK28SR-7 build on Kobelco's reputation for reliability and performance and incorporate several new features to boost their capabilities and really set them apart from the competition."



Keestrack scalpers standard equipped with 'LLG' grease

To increase uptime, Keestrack has standardised the long life grease (LLG) on the K3, K4 and K5 scalper due to impressive testing results.

Keestrack LLG contains anti-wear and anti-friction additives being resistant to water and rust. It is said to extend service intervals and lower costs and downtime whilst expanding the lifetime of the bearings of the screen box and apron feeder by running at lower temperature. The LLG is resistant to high impact loads and vibrations and can handle an ambient temperature from -25° to +145°. Due to the LLG, the service interval is said to be up to 10 times longer.

The operating temperature of the bearings are said to be lower with LLG. In one test, comparing the EP2 grease versus the LLG on the screen box of a K5, the bearings were running at an operating temperature up to 60° with standard EP2 grease, while with LLG they were running at 43°. The use of LLG is also said to have a positive effect on the lifespan of the bearings, resulting in more uptime, less downtime and less costs. To emphasise the unique characteristics of LLG, the cartridges are branded under Keestrack private label. The LLG is available in 400ml tubes and can be easily applied by an ergonomic handpump. The cartridges are made with a screwable cap so they cannot be mixed up with other classic grease pumps. The grease may be applied by the handpump single handed or both handed.

Keestrack dealers informed customers of the new standard on the K3, K4 as of 1 September.

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PDi reports

MONTABERT USA SHOWCASES NEW REBUILD AND REPAIR FACILITY

On Thursday, 28 September, Montabert USA celebrated the launch of its new in house repair and remanufacturing capabilities at the company's North American Operations facility in Nashville, Illinois. Attendees included all of Montabert USA sales and service personnel, as well as representatives from Montabert's home office in Saint Priest, France, and members of the industry trade press and local media.

The expanded Montabert Distribution and Service Center comprises of space that is used not only for work on Montabert's hydraulic breakers, but also for distribution of Montabert's complete product line, centralised parts warehousing, and shipping throughout North America. Prior to the Nashville facility expansion, rebuilds and repairs of Montabert breakers in the United States were handled at a partner facility in Tennessee. Relocating this work to the North American operations location provides numerous benefits that enhance the company's factory certified rebuild programme and improve turnaround times for customer repairs.

Through the Montabert rebuild programme, the company purchases used breakers in North America and remanufactures them for resale. The programme offers competitive labour rates and parts pricing, with 10 day turnaround for remanufactured breakers. Rebuilds are performed by qualified, factory trained mechanics. The finished breakers are tested to 100% functionality and come with a Montabert factory warranty.

According to Amanda Carpenter, sales office, warehouse, and distribution manager for Montabert USA, "With the addition of inhouse rebuild and repair capabilities, we now have a Montabert factory trained breaker technician onsite at all times. We can closely monitor quality of work, control scheduling, and have all parts inhouse. Our repair and rebuild turnaround for breaker customers has been cut by three days, which, in an industry where downtime costs add up quickly, is immense. Our strategic location in South Central Illinois, with the proximity of interstate highways, also cuts down on transport costs for our customers and for us."

In order to accommodate the new capabilities, Montabert worked closely with the building owner to add a pit into which breakers can be lowered for the safe extraction of power cells and to perform inspections and maintenance. "The addition of reman and repair capabilities to our existing distribution facility has taken our industry leading product support capabilities to the next level," notes Aaron Scarfia, Montabert USA general manager. "We are now able to more efficiently support our customers with preventative maintenance of their Montabert products, protecting their investments now and into the future."

Current capabilities for the facility include inhouse rebuilds of Montabert's complete line of hydraulic breakers. The company plans to also offer rebuilds for Montabert drifters and its line of silent demolition equipment. Current rebuild and repair capabilities for the facility include a 10t crane, a pit with lift table for safety and efficient working conditions, and a hydraulic power unit for breaker testing prior to shipping.





Epiroc marks 60 years and counting for its hydraulic breaker range

Epiroc has reached a new milestone for its hydraulic breaker, completing 60 years, a celebration of vision and craftsmanship, with what was once a breakthrough product now used across the construction and mining industries globally.

Originally developed by Krupp Berco Bautechnik, the rig mounted hydraulic breaker was patented in 1963. The first machine HM 400 was a hit at the Hannover fair in 1967, and from that time onwards, more than 2,000 units were sold. The first breaker was exclusively designed to save time, eventually becoming a cost effective solution in the construction industry. Demolition and mining operations at that time saw pneumatic tools being widely used. But the hydraulic breaker was a real game changer as one was enough to replace several pneumatic tools. It was soon known to be a huge time saver that comparatively costed little.

The hydraulic breaker revolutionised the entire construction and mining industry, and today has become a part of the standard equipment fleet, be it for a small or large scale project. "Epiroc hydraulic breakers are still the market leader in most countries around the globe," explains Gordon Hambach, head of strategic marketing for hydraulic attachment tools. "With hundreds of brands in the industry today, the hydraulic breaker still offers a time saving and cost effective solution for demolition, utilities, rock excavation and many more applications. And of course, the breaker was only the start of the development of other attachment tools such as cutters, pulverisers, grapples, shears, magnets, crushers, screeners etc."

In 2002 Krupp Berco Bautechnik was acquired by the Swedish Atlas Copco Group. In 2018, Atlas Copco announced its split from Epiroc. While the former continued focusing on industrial customers, Epiroc took the lead in mining and construction. Following this announcement, the hydraulic breakers remained with Epiroc, along with geotechnical and rock drilling tools, underground and surface mining equipment, and related services.

Development is ongoing and in 2020 hydraulic breakers went digital. 'Hydraulic Attachment Tools Connectivity' or 'Hatcon' is designed to be an advanced level fleet management system, where monitoring operating hours, location and service intervals of tools happens in a few taps across devices such as phones, tablets or computers. Epiroc states that the data from Hatcon provides a new level of control where utilisation is evenly distributed, meaning that optimising transport and increasing uptime with pre-planned service stops has never been easier.

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It is the surface **THAT COUNTS**

A year has gone by in the global surface preparation industry and things are different in many corners of the world that certainly don't help our businesses to grow. However, business must continue and there are still many surfaces out there that needs preparation and renovation, with manufacturers rapidly developing new equipment and tools.

n this annual feature you will find the latest news in terms of surface preparation equipment comprising of solutions for all sorts of surface preparation, containing a number of different types of products and tools. In most cases, different types of dust extraction equipment play a major role in keeping the surface and air clean from dust. In this feature you find quite a great deal of information about how to eliminate hazardous dust.

Polishing perfection with 'Black Rock' from Americo

A company we have never featured before in this special feature is US manufacturer Americo, based in Acworth, Georgia. Americo develops and manufactures, among other things, different types of tools for polishing concrete surfaces. Its series of different types of cleaning, polishing and maintenance pads are sold under the brand name Black Rock, a cleaning and polishing system that restores, cleans, and polishes concrete, natural stone, and a wide variety of other floor types. Through a range of abrasive levels, the four pad system allows for a customisable floor care process based on the starting condition of the floor and the desired gloss level. Through its Integrated 'Matrix Technology', microscopic abrasive particles embedded in the base web deliver mechanical



cleaning action without the need for harmful chemical agents, achieving a clean, high gloss floor.

There are a variety of pads for polishing and daily maintenance available, each of which represents a step for achieving polishing results. The system is produced using 'Proprietary Integrated Matrix Technology'. According to Americo, the system is 25% more effective than other solutions available. It is versatile and used for restoring, polishing, and maintaining a wide variety of floor types. Again, according to Americo, this system is up to 15% more durable than competitors with expected pad life of +/-500K SF in daily maintenance. The products are all made in the USA.

Americo also offers 'Black Rock Purple High Gloss Polishing Pads'. According to the manufacturer the product is superb for daily cleaning and maintenance. It burnishes floors to a high gloss appearance and is ideal for coated floors in high traffic areas. It is effective with only water for chemical free shine and can be used with rotary machines up to 3,000rpm.

www.americomfg.com

PD*i* special feature



Diamond Products introduces new CV150S slurry vacuum

Diamond Products, a subsidiary of Tyrolit, has unveiled its new CV150S, a slurry vacuum designed specifically for the construction industry. The CV150S aims to set a new standard in efficiency, reliability, and performance for slurry management. As the construction industry continues to evolve and demand higher productivity and sustainability, the need for effective slurry management solutions has become increasingly vital. Traditional methods of slurry removal often result in inefficiencies, increased downtime, and environmental concerns. The CV150S is engineered to address these challenges head on, providing construction professionals with an easy to use solution that enhances productivity while reducing environmental impact.

Key features of the CV150S

The CV150 is said to possess a robust and durable design and built to withstand the demanding conditions of construction sites, benefitting from a rugged construction and high quality materials. Its robust design provides durability, reducing maintenance costs and increasing overall lifespan. There are two options of wands: plastic or metal. It is also said to be powerful with its 150 CFM electric motor capable of handling the toughest job site cleanups. It also has a large capacity capable of holding many litres of slurry.

The CV150S slurry vacuum is part of the 'Core Vac' line of drilling products and is one of many dust and slurry containment options that Diamond Products offers.

www.diamondproducts.com

General Equipment's 'M-Series' surface grinder line designed for 'Magnetach' tooling system

Another US manufacturer releasing new developments is the General Equipment Company with its M-Series surface grinders, which feature a convenient, versatile magnetic tooling system, being designed for use by both contractors and homeowners alike. These low speed surface grinders are compatible with a wide range of industry standard magnetic type attachments, including those in the company's Magnetach tooling system, or attachments utilising the 'Lavina'/'EDCO' magnetic mount tooling.

The M-Series line includes five different single and dual head grinders: the single head, electric driven SG12EM; the dual head, electric driven SG24EM; the dual head, electric driven SG24E3HP50M; the dual head, electric driven SG24E3HP60M; and the dual head, gas powered SG24GHM. They offer the same performance and durability of General's long established line of 'Legacy' grinders but use magnetic retention for quickly and easily switching attachments instead of the traditional wedge system.

Compatible attachments within General's Magnetach Tooling System include a 'PCD' coating removal system, tungsten carbide coatings removal system and diamond segment diamond grinding system. The attachments are designed to make the grinders ideal for a wide variety of surface preparation projects, including grinding concrete (green to fully cured) and removing various thin film coatings, epoxies, thin to medium glues, mastics, urethanes, concrete levellers and paint.

The new SG7 'SurfacePro' edge grinder offers a compact solution for a variety of jobs

New from General Equipment is also the SG7 SurfacePro. This is believed by the company to be an ideal edge grinder for everyone from 'do it yourselfers' to commercial contractors. Intended for smaller areas, it can accommodate a wide variety of surface preparation applications, such as levelling concrete and asphalt with productivity and versatility. The heavy gauge steel frame is ergonomically designed to allow the operator to work in a fully upright position. This greatly reduces the potential for lower back pain, strained knees or other occupational related health issues, all while increasing productivity over handheld grinders.

The compact size of the SG7 provides advantages over other edge grinders. With a detachable handle and weighing only 17.7kg without a blade, it is easy to lift and transport, fitting in almost any size vehicle. It also provides the rigidity to remove materials with accuracy and control. Other standard features include 'Anti-Vibe' caster wheels and a 38.1mm diameter dust connection port and hose to handle applications with dust control requirements. The SG7 also comes with a flexible dust shroud that incorporates a flip up edge for improved viewing of the grinder cup edge when operating near features such as walls. The edge grinder comes supplied with a 178mm diameter diamond grinding cup wheel. **www.generalequip.com**

Floor grinders from EDCO solve first layer applications

The US manufacturer has released its new 'Magna-Trap' heavy duty 230V electric floor grinder / polisher. According to the manufacturer, it revolutionises flooring projects, tackling first layer applications, levels concrete, and removes industrial strength coverings effortlessly. Its robust dual disc design grinds many cubic metres per hour with Magna-Trap 'Dyma-Dots' said to ensure a speedy completion of the job.

www.edcoinc.com

The complete solutions in surface preparation delivered from Husqvarna

Husqvarna Construction has further strengthened its surface preparation offering by introducing shot blasters, steel blasters and related dust collectors under the Husqvarna brand. This is the last step in the integration of the Blastrac offering. "Adding the important shot blasting application under the Husqvarna brand to our existing surface preparation solutions – such as floor grinding, scarifying and scraping – represents an important milestone in our goal to support our customers with any surface preparation challenge they may face," said Stijn Verherstraeten, senior vice president Concrete Surfaces & Floors at Husqvarna Construction.

Shot blasting as a method enables effective cleaning and retexturing of concrete and asphalt. The method can be used for the removal of coatings, paint, epoxy and the removal of markings and rubber from highways. Skid resistance improvement on sidewalks, roads and runways are also application areas for these versatile shot blasters. The addition of steel blasting solutions considerably enhances the existing Husqvarna surface



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preparation portfolio. The steel blasting applications go broader than just construction, designed to deliver cost effective and efficient solutions for paint removal and steel surface remediation on windmills, ship decks and petrochemical storage vessels. "We're committed to support our customers all the way – before, during and after their projects. We have dedicated teams for surface preparation in our key markets and are continuously investing in internal and customer training programmes to enhance competence in removing, preparing and refining floors," said Stijn Verherstraeten. The complete range of newly added machines under the Husqvarna brand includes shotblasters, steel blasters and dust collectors for blasting machines.

www.husqvarnacp.com

Shot blaster troubleshooting with National Flooring Equipment

Shot blasters are designed to clean and profile a concrete surface in a single step, making them a popular choice with contractors during floor preparation. "While versatile, these machines can seem like a three year old throwing a tantrum if the users are unsure of how to handle them," says Dave Bigham, director of global training a surface preparation company National Flooring Equipment. Here, Bigham offers some solutions to common problems contractors run into when using shot blasters.

"Shot blasters propel small round steel media, like small metal BBs, at the floor's surface, hitting the floor before rebounding upwards. They are ideal for removing existing coatings while simultaneously preparing the surface for a new coating, such as an epoxy. These machines are built for effective preparation, but in my experience, there are a handful of issues that contractors commonly run into onsite that can be avoided with preparation."

Onsite issues

"The most common problem contractors experience when using a shot blaster onsite is equipment 'dropping shot' or 'puking'. This happens when shot rebounds erratically and remains lying on the surface instead of being drawn back up into the hopper, creating a barrier to removing the coating. This often occurs on soft surfaces like glue, or uneven surfaces, like very rough or tined concrete, so contractors should consider using other tools on these coverings, like scrapers or grinders. Shot blasters also work best when travelling forwards and in a straight line. Attempting to drive a self-propelled machine through curves, or reverse, could result in dropped shot. Instead, contractors can use an up and down pattern, always moving away from the vacuum to protect the power cable, leaving the turning points until the end.

"Regular maintenance of machine parts, like the blast wheel, is also essential to maintain proper function.



Unlike some machinery, contractors can conduct shot blaster maintenance onsite because complete disassembly is not usually required. Although they can initially seem complicated, contractors can tension belts and change blast wheels and liners on the job, minimising downtime."

Shot blasters don't suck

"A shot blaster needs sufficient dust collection to operate correctly and the bigger the tool's footprint, the higher spec of the required dust collector. If a dust collector is too small for the job, has dirty filters, or needs maintenance, it will be difficult to vacuum the space. Any dust left on the surface requires additional labour to clean up, or it could cycle through the machine and cause wear and tear by abrading the interior surfaces. Furthermore, any dust recirculating through the blaster can require the machine to work harder, and this increased power load can cause a site's circuit breakers to trip, disrupting work elsewhere. Dust collector maintenance and using separate power supplies with separate breakers for the shot blaster and the dust collector can help prevent tripping."

Feel the power

"Naturally, bigger shot blasters require more power, and the size of the job will dictate the most appropriate shot blaster. For example, small, 110V blasters can cover around 400m²/h, while large machines running on 480V three phase power can cover 30,000m²/h. Contractors should choose the machine most suited to the job and ensure the correct power supply is available before starting work. A machine being fed insufficient power will either work improperly or not at all. For instance, a self-propelled machine might move, but the blast wheel probably won't start firing shot. Contractors should also consider what power cord they use. A longer cord might make it easier to navigate the site but it may also slow down the machine; using the supplied cord could improve machine efficiency. Just like with toddlers, while they may seem complicated and finickity at first, taking the time to understand what makes a shot blaster tick can make a contractor's life much easier," concludes Dave Bigham.

www.nationalequipment.com

The new Schwamborn DSM 250S for finishing and polishing of concrete and design floors

German manufacturer Schwamborn has many new products in this feature. They include the Schwamborn DSM 250S for finishing and polishing of concrete and design floors, the use of which makes it possible to grind up to the edge during ground preparation, and also during the finishing and polishing of concrete and design floors. The new DSM 250S has all the advantages of the DSM 250 for grinding up to the edge, including the swivelling grinding head and the freely adjustable extractor hood that automatically adapts to the wall contour during edge grinding. In addition, the DSM 250S has been fitted with a water tank for wet grinding and a continuously adjustable rotation speed, which allows edge grinding up to the completely finished design floor edge.

Schwamborn adds floor stripper to its product range

The German company now also offers special machines for the removal of carpeting, sports floors, tiles and parquet. 'With us you make floors good...' is the tagline of Schwamborn. Said to be the market leader in Germany

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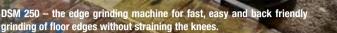


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PDi special feature







The new Schwamborn range extends from small, very robust strippers, including a parquet saw to powerful ride on machines.



FloorZilla hybrid cleaning pads are available in four coordinated cleaning levels for all applications.



for concrete grinding and cleaning machines, it is now rounding off its product portfolio with floor strippers. "We always aim to offer the best possible solution for every type of floor finish," says Eckart Schwamborn, CEO at Schwamborn. "With the new floor strippers, we are closing a gap and getting closer and closer to our goal." In addition to a wide variety of concrete grinding machines, concrete milling machines, single disc machines, and what is said to be the world's first wall and ceiling grinder - which has won several innovation awards - Schwamborn now also offers professional machines for decorating during renovation work. The Schwamborn floor strippers are floor treatment machines for removing floor coverings and their adhesives with cutters, cutter shafts, blades or scraper blades.

Systematic product range

The 'Schwamborn system' describes Schwamborn's systematic, solution oriented configuration of the machine and the tools for floor processing. This concept of consistent focus on customer benefits, which has been successful in the challenges of subfloor preparation, renovation, design as well as in the care and cleaning of floors, has now also been applied to the new product line. "Machines are usually selected on the basis of the size of the surface to be treated and the force required. Then it comes down to equipping them with the most suitable tools specifically designed for the task at hand," says Schwamborn product manager Tobias Raab. "This ensures the best possible efficiency in terms of robustness, area performance, processing speed and thoroughness."

The product range thus extends from compact, robust machines for small and medium sized areas, such as the FBS 105 or FBS 190 models, which are designed to be powerful with hydraulic technology, to ride on machines. For example, the ride on floor stripper FBS 1200 is said to be able to remove a worn sports floor in a gym in no time at all. This is because the optimised motor technology ensures long running times for this battery powered model.

The selection of suitable tools also means that almost any problem can be accommodated. Cutter shafts are used for resin bonded gravel, tiles and ceramics. A range of different cutters and scraper blades are available for removing linoleum, sports surfaces, carpeting and adhesives. These are available in various geometries, dimensions and degrees of sharpness to suit the respective application, saving the operator a lot of effort, time and material costs.

Shockingly powerful - FloorZilla hybrid cleaning pads

Thanks to the innovative 'VreactiV' technology, FloorZilla cleaning pads are said to remove even heavy soiling without the use of chemicals and be extremely gentle on the valuable floor covering. The FloorZilla cleaning pads' high cleaning performance and simultaneously gentle floor treatment is made possible by VreactiV technology and its use of freely movable cleaning grains. These help to significantly reduce annoying process repetitions and cleaning intervals without damaging the floor covering. The result is said to be better, faster and longer lasting cleaning and sealing effects on a wide variety of floor coverings. With the use of FloorZilla cleaning pads, floor cleaning becomes floor finishing at the same time and the operator performs environmentally friendly and economical maintenance cleaning or deep cleaning that cleans in one step, and at the same time makes the floor covering sustainably less susceptible to soiling. FloorZilla cleaning pads are designed for stone floors, PVC, linoleum and many other floor coverings treated with floor cleaning machines.

VreactiV is the name of the technology behind the innovative FloorZilla cleaning pads, which enable improved cleaning performance with lower water consumption, without chemicals and with longer durability. This innovation is now available for the cleaning machines from the German manufacturer Schwamborn.

Efficient and sustainable

"We are very pleased that we, as the original equipment manufacturer, can offer these revolutionary cleaning pads for our machines," explains Eckart Schwamborn, CEO of Schwamborn. "Tests have convinced us that these pads are more thorough, durable and sustainable than conventional cleaning pads". Schwamborn was particularly convinced by the lower water consumption and the suitability for dry cleaning. "Even with completely water free polishing, the results convinced us," he adds.

Made entirely from recycled material, the pads consist of three layers: a fleece that ensures a secure hold on oscillating and rotating single disc machines; a PUR foam that also acts as a water reservoir and the five VreactiV surfaces. The innovation results in the firm bonding of millions of tiny silicon carbide grains on an elastic surface. This creates a 3D mobility that significantly increases the cleaning performance due to the high number of grains acting on the floor. In addition, the contact pressure is said to be approx. 300% higher than that of conventional pads, which nevertheless enables gentle cleaning of natural stone, rubber, terrazzo, PVC and industrial floors. "The VreactiV surfaces adapt so perfectly to the ground due to the movable SiC grains meaning that there is significantly less wear and thus increased service life," explains Tobias Raab, product manager at Schwamborn. "FloorZilla pads are therefore the perfect complement to our traditionally powerful cleaning machines and not least for our new oscillating OES 430."

The pads are available in four variants: green and yellow are suitable for maintenance cleaning of resilient and harder floors, while red and black are

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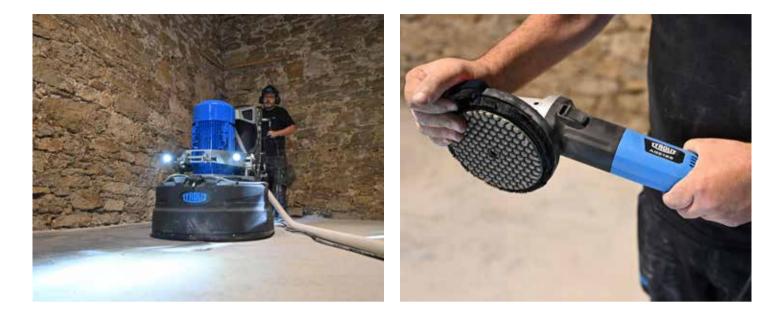




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designed for removing heavier soiling and for basic cleaning of stone floors. The green and yellow pads are suitable for dry polishing. Wet application is possible with all pads and are therefore powerful against dirt and gentle on floors.

www.schwamborn.com

New products from Superabrasive and expansion of the factory

Superabrasive's 'Lavina' line has recently expanded with the introduction of new models for the S7 generation of grinders. The first 783mm S7 models were unveiled at the World of Concrete in January 2023, and now several 673mm machines have been added to the lineup. These include two propane grinders (one with a Kawasaki engine and one with a Kohler), as well as two electric grinders. All of the new models feature the S7 frame design with upgraded weights and handle, as well as a completely sealed and dust proof grinding head with a redesigned chain driven planetary drive, stronger timing belt, and upgraded shafts and pulleys. These new features provide a better operator experience with less vibrations, easier tool changes, and longer service intervals.

Over the last decade, Superabrasive has made some significant improvements to its factory, expanding it from 18,500m² to 30,840m² and investing in new equipment and technology. A brand new facility spanning 7,246m² was built this year, and will be used for production of power trowels.

www.superabrasive.com

Tyrolit focuses on best results in floor grinding and floor prep

Tyrolit says it is setting new standards in floor grinding and floor prep with its in house range of tools and machines for this field of application. To illustrate this, in mid-October 2023, the old winepress room in Bächlingen (Lanenburg), Germany was the scene of a comprehensive floor renovation, in which a large part of the Tyrolit floor grinding range was used. The winepress room dates back to 1766 and is frequently used for various community events as well as for celebrations and weddings. The municipality requested a low maintenance floor for the building, and so the existing floor was reconditioned in a total of seven grinding processes with diamond tools in different grit sizes. After three rough grinding steps, existing cracks were filled and, subsequently the floor was fine grinded and polished in another four steps. As a final step, the floor was impregnated to optimally withstand future loads and to ensure easy cleaning. The old floor consisted of different surfaces and materials, was very uneven and had cracks in some places, which basically turned out to be the biggest challenge of the project. Nevertheless, the Tyrolit team was able to complete the work within the planned time frame without any problems.

A comprehensive range for floor grinding and floor prep

The Tyrolit assortment for floor grinding and floor prep is comprehensive, ranging from floor grinders, extraction



systems and floor strippers to shot blasters and milling machines, the company offers various machine solutions. The range is complemented by a wide selection of perfectly matched diamond tools, including metal bond grinding shoes for floors with different degrees of hardness, as well as resin and ceramic bond grinding and polishing tools. Chemicals for repairing and finishing floors, various sealers and fillers round off the assortment.

Floor grinders with grinding widths of up to 780mm

Tyrolit floor grinding machines are currently available for grinding widths of between 280mm to 780mm. The powerful floor grinders FGE515 and FGE780 both feature an innovative gear concept for maximum productivity. While the FGE515 impresses with its compact design and dismountable machine parts, the FGE780 is a self-propelled, professional machine with a water tank and a dust extraction system that can, nevertheless, be operated easily and intuitively via remote control. Both floor grinders were used for the renovation in Bächlingen. Along the walls, the floor was additionally grinded with the compact FGE280 floor grinder, as well as by hand with angle grinders and corresponding diamond tools from Tyrolit.

Paulo Bergstrand back in business for Tyrolit

The industry probably remembers Paulo Bergstrand, formerly owner, sales manager and president of Swedish floor grinding manufacturer Scanmaskin. Bergstrand left Scanmaskin some years ago to work in another sector of construction equipment. But now he is back in the surface preparation industry again. Earlier this year he was hired by Austrian manufacturer Tyrolit and was appointed sales director. Floor Grinding and Surface Preparation, Europe and Middle East. Berstrand is based in Gothenburg, Sweden. Welcome back Paulo!

www.tyrolit.com

Von Arx into the dust extraction business

In a standalone article directly after this feature, you can read about Swiss manufacturer Von Arx's journey during the last year, with an interview of the company's owner Fredrik Åkermark, formerly of Pullman Ermator and Husqyarna.

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Worx+ from Australia, a pioneer in concrete floor grinding and polishing

Worx+'s longstanding history and expertise in the concrete grinding and polishing industry play an integral part in improving daily operations for contractors in the field. If you're familiar with the King Concepts brand, you know their development and creation of Dual-Drive planetary grinders, 'Redi-Lock' and 'Hiperfloor (to name but two) which were acquired by Husqvarna and are still regarded by many contractors globally as the industry standard for productivity. Since the acquisition, the former owners moved on to create Worx+. Now 10 years old, Worx+ has been in the concrete grinding and polishing industry developing constant innovation in a strong lineup of equipment, tooling, machinery, servicing and dust management. Worx+'s absolute commitment to providing total solutions to its customers ensures all solutions contribute to real differences for contractors and their daily operations. Worx+'s latest products and innovations related to surface preparation include the following.

Machinery from Worx+

The power, performance and output of grinding machines play an obvious and crucial role in the outcome of surface preparation operations. Worx+ says the company gives contractors the ability to optimise machinery performance and output with the Worx+ 'Big Block' upgrade. This upgrade includes a 15kW motor upgrade, software tuneup, and mechanical components to ramp up performance and pump out more metres. The Worx+ servicing team has seen countless Husqvarna and HTC machines come through for a Big Block motor upgrade. Dust management systems help with worksite and personnel safety and containment of dust, but some forget that high quality dust management equipment can make a significant difference in operational efficiencies and production capacity. Worx+ states that it provides a superior and robust dust extraction product line up that does just that. The Airworx 55T dust extractor has been re-modelled

to a more compact design for easy transportation with no loss in power output and a 15% increase in filtration capacity compared to its predecessor.

Another highlight in the Worx+ dust extractor line up is the Airworx SCS. A single chamber separator with a unique bypass valve system that allows for continuous airflow through the separator to the vacuum unit, enabling dust bag changes without the need to turn off the vacuum system. Improving efficiency and boosting operator productivity by up to 25%.

Dust management doesn't stop there for Worx+. They've also released their own range of air cleaners or air scrubbers — industrial-grade air purification systems to regulate worksite environmental air quality.

Diamond tooling from Worx+

Tooling selection is key when it comes to delivering effective surface preparation. The Worx+ team developed the 'ROX' metal bond diamond range to offer fast and easy grinding for increased productivity rates. It's said to set advanced, high-performance benchmarks in diamond tooling output and longevity with a variety



of diamond shapes and its unique integrated 'Continuous Grinding Technology' (CGT). The ROX range is designed to deliver high output for heavy-duty surface preparation and stock removal all the way through to high-end polishing.

For more specialised surface prep diamonds, Worx+ offers the 'Zig Zag' diamond tool range, designed to be high-performance tools for high-speed surface preparation applications and for aggression on harder concrete. Their unique design allows operators to apply pressure with greater stability than traditional thin segments. Multiple leading edges increase speed and decrease the heat of segments more effectively than conventional tools thereby increasing performance output.

Floor treatment

Many would be familiar with liquid grout, densifiers, and sealers in the world of concrete grinding and polishing, but perhaps not with grinding accelerators. Welcome, Totally 'Cut Sikk'. A floor treatment specifically developed to help accelerate grinding applications, particularly in the surface preparation stages - an industryfirst from Worx+. It is said by the Australian company to be the grinding accelerator of choice for fantastic metal bond grinding impact and the fast-tracking of surface preparation. Formulated to accelerate grinding, cut through surface contaminates faster, and maximise grinding performance, it is available in 'Totally Cut Sikk Regular' (TCSR) which is best used for grinding applications free from thick surface contaminants. The other model, 'Totally Cut Sikk Aggro' (TCSA), is designed to maximise metal bond grinding performance for the removal of thicker surface contaminants (e.g., carpet & vinyl glue/adhesive, flexible ceramic tile adhesive etc.).

Surface preparation is just the tip of the iceberg for Worx+. The company offers a full lineup of tooling, machinery, floor treatment, and servicing to provide total solutions for concrete grinding and polishing contractors.

www.totallyworks.com

PDi site report





www.VONARX.com



Industrial floor renovation with depth FROM SCHWAMBORN

The new BEF 400RC surface milling machine from Schwamborn has been designed for economical working during concrete floor and concrete joint seeding. Depending on the wear and tear of a concrete floor the deep removal of the surface up to several centimetres is often necessary, for which, Schwamborn's new milling machine has been designed to provide high power floor de-coating.

hen a floor shows signs of wear, often extending into the soil, it can be necessary to remove the surface to a depth of 1.5cm. Schwamborn states that attempts to carry out this work with other available surface milling machines failed, not being capable of reaching the desired depth. With the Schwamborn BEF 400RC however, a depth removal of 1.5cm is achievable. This is not only very economical due to the high area output and speed, but also extremely ergonomic due to the fact that the new milling machine can be operated by remote control. The new dust extraction options also reduces strain on the operator. Furthermore, when a new mineral industrial floor coating is to be applied after removal, it is important that the substrate has been removed to an even depth, only in this way can the maximum load bearing capacity and durability of the renovated floor be ensured.

Substrate preparation

Substrate preparation is made possible by the various technical innovations on the BEF 400RC, such as the precisely adjustable milling depth (even on sloping sub-soils). The exact milling depth and the position of the milling rotor can be determined separately on the right and left with the aid of an integrated spirit level, which also contributes significantly to the uniformity of the milling pattern. After the depth removal, Siegmund Griesheimer Siegmund Griesheimer, head of Schwamborn applications technology recommends grinding the milled board to get the surfaces completely even and to free it from parts loosened by the heavy milling operation because the substrate should have a perfect surface strength. "Then you can assume that a cementitious, mineral based coating, for example, will be highly durable in the long term," he explains.

Joint renovation of concrete floors

The BEF 400 RC is specially designed for all soil cultivation tasks that require a large working depth. The machine's 40cm

wide rotor can be equipped not only with classic milling cutters (eight point carbide discs), but also with diamond cutting cutters, which cut even the hardest concrete soils to great depths. Depending on the task, several cutting discs can be mounted individually. The floor is cut into clean, evenly deep strips and can then be completely removed with a hammer drill to a depth of 3.5cm.

For the joint renovation, the milling rotor with the cut off wheel rotor was exchanged on the construction site within approx. 20min, as when renovating joints, it is important to remove the material gently in order to avoid major damage to the joint area. The joint is then refilled and, after the material has hardened, a new joint is created by a separation cut following the previous joint.

On the left, 1.5cm deep removal by the BEF; on the right, the milling pattern of a conventional surface milling machine.





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In 2019 he took over the well-known Swiss manufacturer Von Arx. Since then a number of new products and tools for scarifying and shaving has been released. Now Von Arx is rolling out its new line of dust extractors for professional use. Meet Fredrik Åkermark and the new Von Arx.

product segment that has an extremely strong connection to surface preparation equipment is devices for dust extraction and air cleaning. Machines for scarifying, shaving, grinding or polishing concrete surfaces creates a lot of dust, which is not really good for the environment. Many countries have been quite efficient creating regulations about how to handle concrete dust, meaning that special dust extraction equipment is required. Two of these countries with rigorous regulations are Sweden and Germany. These strong regulations have not only been adopted by manufacturers of dust extraction equipment in Sweden and Germany but are also driving the development of equipment.

Acquiring Von Arx in 2019

A good example of this development work is Fredrik Åkermark, who is today the owner of Von Arx, a renowned Swiss manufacturer of high quality machinery. Following the acquisition of Von Arx in 2019, Fredrik and his team noticed a growing demand from customers for dependable, user friendly and high quality dust extractors that could seamlessly complement their scarifiers and shavers. PDi had the chance to ask Fredrik some questions about Von Arx's new line of products.

We have learned that Von Arx is releasing a new line of dust extractors. Von Arx is a reputable manufacturer of scarifiers and shavers. What has driven the development of a line of dust extractors?

"Quickly after the acquisition of Von Arx in 2019 we learned that our customers wanted to have a reliable, simple, and high quality dust extractor with our scarifiers and shavers. And they wanted to buy them from the same manufacturer, as a package. Due to many other projects, the dust extractors had to stay back but as a professional manufacturer of machines that creates dust it was an obvious decision to do our best to create a good solution for our customers to collect that dust best possible way," answers Fredrik Åkermark. *Is there a dust extractor for each Von Arx machine?* "Yes, we have five sizes and models of dust extractors sized after each Von Arx scarifier or shaver."

Can you describe your new line of dust extractors?

"We know that contractors are looking for high quality and simple machines and that's what Von Arx always has been producing. Same goes for our new line of dust extractors; they should be strong, high quality, durable but simple to work with. The dust extractor line is adapted with scarification, shaving, and grinding in mind. For scarifiers, you need high water lift PSI (bar) since the debris is more like gravel and heavy to lift from the floor. And pre-filters with large surface, high air flow CFM for shavers and grinders that produces large amount of finer dust particles. We have found that many vacuum manufacturers put all focus on the use of the vacuum, which is not wrong. But they seem to have forgotten the importance of solutions for when the vacuum is not in use, such as

PDi reports

loading, transport, service, and repairs. That's where equipment is most vulnerable."

How have you tested the extractors?

"All models have been in field tests for over a year and we have been running them connected to grinders, saws, scarifiers and shavers. Many times, they have been connected to oversized machines to really push them hard. All with amazing results actually."

What key features did Von Arx prioritise when designing the dust extractor line?

Von Arx prioritised several key features when deciding how to have the dust extractor line. Focus has been on creating strong and durable machines that are also simple to operate. The dust extractors were specifically developed with scarification, shaving, and grinding in mind. Different models were designed to address specific needs, such as high water lift PSI (bar) for effective removal of heavy debris from the floor in the case of scarifiers, and pre-filters with large surface areas and high air flow CFM for efficient collection of finer dust particles generated by shavers and grinders."

How does Von Arx ensure the quality and durability of its dust extractors?

Von Arx places a strong emphasis on quality and durability in the construction of its dust extractors. All models are equipped with high quality two stage motors that provide excellent air flow and PSI (bar). The extractors feature an efficient semi-automatic filter cleaning system and utilise a dust free Longopac collection system. They are also designed with robust chassis to withstand rough handling and come with strong, large wheels and casters for enhanced manoeuvrability. Von Arx's commitment to quality, ensures that our dust extractors can withstand the demands of professional use."

What makes Von Arx dust extractors a trusted choice for contractors?

"Contractors can trust Von Arx dust extractors for several reasons. Firstly, Von Arx is a reputable brand known for producing high quality products with operator safety as a top priority. Secondly, the dust extractors are designed to deliver exceptional performance, with powerful motors and effective dust collection capabilities. Additionally, Von Arx offers competitive pricing, making the dust extractors an attractive choice for contractors seeking reliable and affordable equipment."

Has Von Arx conducted any independent testing or received feedback from customers regarding the dust extractors?

Yes, independent third party testing and field testing has been conducted with fantastic feedback from customers regarding the performance of the dust extractors. The machines have been extensively tested in real world conditions, connected to various equipment such as floor grinders, concrete saws, scarifiers, and shavers. The positive results and feedback received validate the effectiveness and reliability of the dust extractors in capturing dust and debris efficiently," ends Fredrik.

In conclusion, this presentation of the new line of dust extractors from Von Arx has shed light on the motivation behind the development of Von Arx's dust extractor line. The company's commitment to meeting customer demands for reliable and high quality equipment has resulted in dust extractors that seamlessly complement its scarfiers and shavers. The emphasis on durability,

simplicity, and operator safety has led to machines that deliver exceptional performance and efficiency.

The new concrete shaver, Von Arx DTF35

At bauma Von Arx launched its new shaver model DTF35. Deliveries started in January this year and by the end of September, 125 machines had been delivered to customers all over the world. The machine is available in both electric and LPG versions. For the American market, a 25kW 480v motor is used and for the European market, a DTF35 is available in 15kW and 22kW. The 15kW version needs a 32amp feed while the larger 22kW machine needs 63amp. The 22kW DTF35 has the ability to cut faster without overloading the motor. The cutting width is 35cm and the machine can cut up to 2.5cm deep. Like all Von Arx self-propelled machines, a hydraulic drive system is used to secure high durability and productivity. Low vibration levels (below 3m²/s) and ergonomic handle design creates safe use for the operator. The 15kW machine weighs 307kg and the 22kW weighs 411kg.

Something about Fredrik's background

It is important to mention in this article is something about Fredrik Åkermark's background. PDi Magazine has followed his career and the companies he has worked for many years. It all started in the 1990s when Fredrik worked for the Swedish company Bevaclean. Bevaclean decided to sell Pullman dust extractors on the European market, including Scandinavia, and the company Pullman Scandinavia was formed.

The company was very successful and in 2005 Pullman acquired another Swedish manufacturer, Ermator, with the company name being changed to Pullman Ermator. Pullman Ermator was well-known for its air cleaners, dust extractors and cyclones. Pullman Ermator grew over the years and founded a subsidiary in North America called Ermator Inc., where the Ermator brand was sold. Due to a competition clause, Pullman Ermator was not allowed to use the brand name Pullman on the US market as it still existed as a US Pullman brand. However, in a few years Pullman Ermator acquired the US Pullman company and all Pullman products were incorporated in Pullman Ermator resulting in huge sales, particularly in the US market.

The Pullman Ermator range of products fitted like a glove with another range of Swedish products, namely

HTC Sweden's range of machines for grinding and polishing concrete surfaces. As Husqvarna Construction Products was expanding heavily it decided to acquire HTC and then also decided to acquire Pullman Ermator. This happened in 2017. As Fredrik Åkermark had been working at management level since the 1990s it resulted in him and the rest of the Pullman Ermator staff joining in following the acquisition. Due to the strong focus on the US market after acquiring Ermator, Fredrik moved to the US to take care of the business there. Until the Husqvarna take over, the US head office was located in Tampa, Florida, but following the acquisition, the head office relocated to Olathe, Kansas.

Sometime after the acquisition by Husqvarna, Fredrik and his family moved back to Sweden following over 10 years in the US. Fredrik worked for a number of



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years for Husqvarna Construction Products but decided in 2019, when Swiss manufacturer Von Arx came up for sale, that he would like to acquire the company. "Von Arx is an old brand that I have come across many times during my years working with dust extraction equipment. And dust extraction equipment is of course a little bit where my heart lies. For me, Von Arx high quality equipment creating dust goes of course hand in hand with my ideas of developing equipment that takes care of the dust efficiently," says Fredrik. "I am very proud of what we are accomplishing at VonArx in Plovdiv and I'm lucky to have such fantastic team. Everyone really puts their heart into the work."

As a magazine covering this sector since 2000, and through our Swedish publication Professionell Demolering since 1995, it is quite thrilling to see another Swedish owned company doing so well in this sector. Sweden has a very long tradition of developing equipment to grind and polish concrete surfaces on an extremely professional level. The same can be said with regards to extracting the dangerous particles created when preparing concrete surfaces like grinding, polishing, scarifying or shaving. With Fredrik and his team on board at Von Arx, the global market has seen another strong and competent player enter the dust extraction market and will probably do the same regarding air cleaning.

As a magazine in this field that knows Fredrik Åkermark and his colleagues well, we are just waiting for the first range of floor grinders from the company. We asked



Fredrik if that was something he would like to comment on: "No I cannot," Fredrik says and smiles. "Now we are very busy with what we currently have and for now the company needs to breathe. So do not expect many new products from Von Arx in a while," Fredrik ends. *www.vonarx.com*





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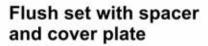
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The Lekatech Electric Hammer is of light weight, high power but produces low vibrations, being built for operator comfort, economic use and high productivity. Although pleased with its development, in order to get the hammer right, Lekatech undertook field trials at the Seepsula quarry in Finland using the services of two of Finland's most experienced hammer operators.

The Lekatech Electric Hammer is powered by new and patented linear electric motor technology, being designed and developed to revolutionise the impact hammer market. "The Lekatech Electric Hammer is highly efficient and has a power to weight ratio superior to similar traditionally powered hammers. Before we introduced it to the market, we wanted to be sure that its design and features were as good as we thought they were. That is why we undertook such onerous field testing," explains Antti Anttila, CEO, Lekatech Oy.

Famous granite quarry

Lekatech chose the Seepsula quarry, located close to the Helsinki-Vantaa Airport, and some very experienced hammer operators when it came to the field testing of the new Electric Hammer. The large and extensive quarry is well known as the leading aggregate supplier in Southern Finland, with extensive expertise and experience in the use and application of a variety of equipment used in aggregate production. Furthermore, the experience of the quarry and equipment to help produce a variety of aggregates was seen by Lekatech as essential when it came to the development and refinement of its new Electric Hammer.

For the field testing at the Seepsula quarry to generate the right feedback on the hammer, choosing the operators was seen as important as choosing the right site. They had to be experienced and knowledgeable so to channel their experiences of the hammer directly back to Lekatech. The operators selected for the field tests have been working for a long time in the hammering business; Tatu Lehmuskoski is the CEO of the Laitilan Linnee company, but still from time to time can be found sitting in an excavator at the sharp end himself. The other operator, Jasper Kultanen, works for the Suomen Räjäytyslouhinta company which specialises in blasting and secondary breaking.

Feedback from the experts

During the field tests both operators used the Electric Hammer to break approximately 1 m³ granite boulders, which following breaking with the hammer would then be fed into the Seepsula quarry's crushing equipment. Tatu Lehmuskoski said of his experience: "In the beginning, I was really surprised because the operator comfort was really better than I expected. There was a





lot of power, even though it was a rather small hammer. I'm used to bigger hammers. All in all, the testing was a very positive experience." Tatu further identified two areas that he was specifically impressed by; "The noise and vibration levels were lower than with traditional hammers."

Likewise, Jasper Kultanen's was very impressed: "The hammer starts quicker and there is full power immediately, unlike with traditional hammers." However, one thing surprised Jasper, "The hammer controllability is really good. You can operate the excavator engine with low idling. The power of the hammer is not dependent on the engine revolutions. This is very good for nonexperienced operators."

In fact, Jasper Kultanen enthused on his experiences: "The hammer is not kicking back to the excavator; I think the idle blow preventing system helps. The starting of the electric hammer is like starting an electric car, no delays with starting and full power available immediately. Low noise and vibration levels were positive surprises when trying out the hammer. The power seemed to be quite good considering the size of the hammer."

Antti Anttila was delighted with the feedback Lekatech received from such experienced and professional operators. He commented, "The Lekatech Electric hammer is purpose built and designed with the operator's comfort in mind. It has been built to deliver 70% better efficiency than hydraulic hammers, have double the impact energy and 98% lower oil consumption when compared to hydraulic hammers. These benefits were highlighted during our field testing and the positive feedback we received from such professional operators as Tatu Lehmuskoski and Jasper Kultanen reinforces our belief in that we have a game changing revolutionary development."



Lekatech 'Electric Hammer' aims to revolutionise impact hammer market

Lekatech Oy, a Finnish technology company, has introduced what it says is a groundbreaking electric hammer based on its patented linear electric motor technology. "Our technological breakthrough not only enables more energy efficient earthmoving and mining operations, but also strengthens the realisation of a green transition in these fields," says Antti Anttila, CEO of Lekatech.

Lekatech's Electric Hammer is powered by novel and patented linear electric motor technology, developed through years of dedicated research and innovation. "We are proud of the strides we have taken over the past five years in developing linear motor technology," Anttila adds. Lekatech's electric hammer aims to shake up the traditional hydraulic impact hammer market, catering to both urban and mining environments, especially with the integration of electric carrier machines.

The electric hammer is designed to increase energy efficiency by 70% compared to its hydraulic counterparts. In addition to energy efficiency, it is said to outperform comparable traditional technology, providing twice the blow impact energy of a hydraulic hammer of the same size. Environmental friendliness and performance are also implicit to the design and the hammer has programmable features to provide flexibility and enable continuous digital development.

The Lekatech Electric Hammer introduction coincides with the increasing use of electric carrier machines, enabling seamless integration with electrically powered machinery. This, says Lekatech, will provide up to 70% energy savings when factoring in overall energy consumption of the equipment. Furthermore, the innovative hammer eliminates the need for oil and the oil associated environmental impact of hammering, with oil consumption being reduced by 98% when compared to hydraulic hammers.

AN INTRODUCTION TO HAND-HELD CONCRETE GRINDERS

A handheld concrete grinder has a wide range of applications, from renovation work to levelling and remediation and can also be used to supplement the work of a large, walk behind floor grinder.

A well designed concrete grinder will make a difficult job much easier. Although there are a lot of budget concrete grinders on the market, these are simply metalworking angle grinders with a diamond cup wheel mounted, not having important features and characteristics that make purpose built concrete grinders such as the AGP machines so effective. They have many uses for tasks in renovation of old construction, such as grinding off old screed, plaster, grout, or concrete. They are also great for grinding off crests and generally levelling uneven concrete surfaces.

Types of cup wheels and other factors

There are three main types of cup wheels available to be used for specific tasks. Cup wheels for grinding hard concrete will have diamond segments designed for this purpose with softer bond, allowing more aggressive diamond exposure. These diamond segments will stay sharp but will not last as long. Cup wheels for grinding abrasive materials such as soft concrete, screed, tile mortar, etc. have diamond segments made to resist the abrasiveness of the work material, thus lasting longer. PCD cup wheels are suited to aggressively scraping away adhesives and soft coatings such as bitumen and elastomeric roof coating without smearing.

Due to dry grinding, dust containment is very important meaning that the dust skirt must be as effective as possible. This also provides the additional function of keeping the cup wheel properly aligned to the surface. Therefore, it needs to have the ability conform to the surface shape by way of a spring suspension. In addition, to allow grinding up to the edge, the skirt needs to have a half-moon door which can be temporarily opened.

Since the grinding of vastly different surfaces is possible, it is important that the rotation speed may be adjusted to best suit the application. In addition, having constant speed electronics allows the set rotation speed to be kept consistent during operation, which will result in a much more even surface. Unlike most of the concrete grinders in the market, AGP grinders are all equipped with variable constant speed.

Selecting a concrete grinder

AGP has a full line of concrete grinders and so one can find the exact tool needed for the job. The three main criteria for choosing a concrete grinder are handle style, cup wheel size, and motor type. The two main handle designs are angle and vertical style being a matter of operator preference which type to use. The technique employed with either involves a light touch, with the operator guiding the tool quickly over the surface to grind a small depth at a time.

The vertical style, such as used on the G5, G7, and BG5 AGP models, puts the weight of the motor directly over the cup wheel, making them especially suited to grinding horizontal surfaces. These are also suitable to be used with the floor grinding trolley. The angle style, such as used on the AGP G125, G180, and BG125 is more general purpose. The most common sizes for cup wheels are 125mm and 180mm. 125mm usually have a wider variety of consumables available and tend to be more economical. 180mm, such as the G7 and G180, are more suited to grinding larger areas.

Motor type

Universal motors use conventional carbon brush design used in most power tools. These motors offer good power to weight ratios, simplicity, reliability, and economy of operation. The motor's carbon brushes are a wearing part and thus maintenance involves replacing them when worn. Brushless high frequency motors, such as used on the BG5 and BG125, have the advantage of having much higher efficiency and thus output, as well as not needing to replace brushes, thus making them virtually maintenance free. Although their initial cost is much higher, they tend to last many times longer than universal motors, have higher efficiency, and have a higher ingress protection rating.





Scanning for rebar in concrete WHEN IT'S 'EVERYWHERE"

Zircon says that its advanced handheld metal scanning tools are able to detect rebar and other metal deep within concrete to increase worker safety and reduce costs on replacement bits and blades.

fter a concrete structure has been built, it may be necessary to drill or saw into it to incorporate changes. The trouble is that some applications require a significant amount of rebar, which can be set in grid patterns, rows, columns, or even randomly. This creates a situation where it seems impossible to find an appropriate location to drill or cut without hitting metal. To mitigate these risks, construction workers often require metal scanning tools.

A construction site is not a place to take safety risks, but safety can be compromised if drilling is undertaken indiscriminately into a maze of rebar. When blades or bits hit metal, they can shatter into flying fragments or grab and bind in the material, causing kickback that can result in severe hand and wrist injuries, if not worse. Worker injuries of this nature can lead to project delays and costly worker's compensation claims. Damaged concrete, drill bits, or saw blades additionally lead to downtime and unnecessary replacement costs.

It is crucial to identify where rebar is located before drilling or cutting into a concrete structure. One technique is ground penetrating radar (GPR), which can locate metallic and non-metallic objects by sending a small electromagnetic pulse into the concrete and analysing the echoes that result from subsurface objects. Although GPR is quite effective at locating rebar deep within a concrete structure, the equipment requires extensive training and can be very expensive.

Fortunately, handheld metal detectors have been around for decades and are very easy to use at a lower cost. Zircon, a leading manufacturer of sensor technologies, offers several models that can detect rebar in concrete at different depths, so the end user can select the best device to fit their needs. Since 1980 Zircon has continued to innovate, with the Silicon Valley based, a wholly owned subsidiary of ZRCN Inc., designing and manufacturing an extended range of sensor technologies in electronic hand tools including wall scanners, metal detectors, circuit breaker finders, drill guides, water detectors, and levelling tools.

Zircon addresses the issues of locating rebar in concrete through innovative handheld scanning devices such as the 'MetalliScanner MT 7' and the 'MetalliScanner MT X' metal locators. The MT 7 can be used to locate rebar, pipes, and other metal before sawing or drilling. The scanner can locate metal, including 12.5mm rebar, up to 150mm deep. The MetalliScanner MT X metal detector is designed to address the difficult task of locating the spaces between rebar in tight grid patterns. In 'DeepScan' mode, the 'MT X' can locate rebar or metal pipes up to 100mm deep.

Devil's Slide tunnel

A Zircon metal scanner was put to the test during the construction of northbound and southbound tunnels for a project along California's highly trafficked Highway 1, which runs along the cliffs on the Pacific Coast. The area is known as Devil's Slide, due to mudslides from the steep terrain above the highway that often close sections of the road for months at a time. The two tunnels are each approximately 1,300m long and are connected by 10 mechanical rooms.

In one of the first phases of the project, the construction crew was tasked with installing a ventilation system in one of the mechanical rooms. However, due to the extensive amount of rebar, the company's MetalliScanner MT 6 metal detector, the precursor to its new MT 7, was indicating metal 'everywhere'. The reason there was so much more rebar was its location in earthquake country. Given the challenge, the crew contacted a Zircon representative, who physically visited the jobsite to help troubleshoot the problem. He suggested that instead of focusing the MT 6 on finding metal, the crew should instead focus on the weakest signals to find the gaps in the rebar.

The team proceeded to use the Zircon MT 6 to scan in this manner in the remaining nine mechanical rooms and were successful in drilling to install the ventilation without hitting rebar 99% of the time - a vast improvement. The next phase of the project involved installing 'Jet Fans', which required the crew to drill into concrete while suspended high in a bucket. The MT 6 allowed for quick scans to determine the ideal locations for the concrete fasteners. Because the scanner is lightweight, the crew was able to perform multiple overhead scans quickly. At the project's completion, the crew advised Zircon that it would be beneficial to add a wrist strap to future metallic scanners to facilitate overhead scanning. This feature has been incorporated in the company's current model, the MT 7, along with a pivot handle attachment and optional extension pole.

It is crucial to understand where rebar is located before attempting to cut or drill. Zircon believes that handheld rebar detection tools are the easiest and most cost effective way to avoid the maze of rebar in an existing structure before a drill or saw ever touches the concrete.













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PDi reports

71 YEARS OF SENNEBOGEN CELEBRATED AT INHOUSE EXHIBITION

Established in 1952, Sennebogen is very well positioned after 71 years. Since the last big inhouse exhibition in 2017, not only have the number of employees and locations worldwide grown, but also the company's broad equipment portfolio. At the company's September inhouse exhibition it showed the latest technological developments and highlighted various investments in new and existing locations.

Sennebogen currently has 2,200 employees located at five locations in Bavaria (Germany), two steel plants in Hungary and branches in the USA and Singapore. Sales and support are undertaken by a comprehensive network of dealers with over 180 sales and service partners and over 300 service centres worldwide. This has all resulted in during the past few years not only recording increased average sales growth, but the company has also seen continuous investments in existing and new locations. At the same time, the workforce has grown dynamically to its current size. However, despite this growth, one thing always remains the same: Sennebogen is and remains a family company.

The company is now managed by the second generation, Erich and Walter Sennebogen, and by the third generation, Anton and Sebastian Sennebogen. The two other grandchildren of the company founder are already in the starting blocks and are involved in all important



appointments and events. Erich Sennebogen is optimistic about the future: "Our customers are amazed by the dynamic approach and agility of the company, and we are sure that the investments will have a very positive impact on further development. The business areas have become more diverse and customer demand for quality products and services is growing constantly. To stay ahead of the competition, we invest in our product portfolio and locations every year."

Facilities in many countries

Sennebogen has built new facilities in recent years including a customer service centre in Steinach, which opened in September 2021, catering for spare parts, customer service, as well as the rental and used machine fleet. There were also expansions at the Wackersdorf site, a second steel plant in Litér (Hungary), and a brand new product development campus at the Straubing/ Port site which was officially inaugurated at the inhouse exhibition. Here, new machine development, testing and prototype construction are brought together in a central place to enable a more intensive focus on the development of new technologies.

Sennebogen thinks long term, and that includes responsible use of resources. The company is committed to its goal of becoming climate neutral by 2030. All new buildings are built in accordance with the KfW 55 standard (reduces energy consumption by 45%) and are therefore particularly energy efficient and environmentally friendly. Energy saving lighting, heating buildings with low temperature heating and environmentally friendly cooling using groundwater are also used.



Volvo ECR25 reaches new heights

An ECR25 electric compact excavator from Volvo CE is helping to rebuild one of the longest and steepest cable car routes in the world. At an altitude of 2,970m, the compact excavator is said to be one of the few machines capable of working in this most demanding of locations thanks to its electric driveline.

The excavator had to be transported to the summit of the Schilthorn in Switzerland via helicopter winch. Here, the excavator is being put to work on excavating and creating the foundations for a new summit station as part of the renewal of the popular ski resort. Operated by Schilthornbahn AG, the new cableway will increase passenger capacity and reduce travel time, as well as enabling 365 day access to the mountain summit.

Timur Abied, utility product manager from Volvo CE commented: "We're thrilled that the ECR25 electric has been selected for this project. Not only is it a tricky location, it's also hugely iconic. We're used to discussing the benefits of near silent zero emission electric machines in busy urban locations and for indoor works, but this project shows the versatility of electric (power) to solve more problems than one might think. We're very much looking forward to proving the power of electric machines to rise to the toughest of challenges." Construction specialists Ghelma AG Baubetriebe are responsible for the excavation and foundation work for the new summit station. "There are two main problems up on the mountains," explains Melchior Burlon, site manager at Ghelma AG Baubetriebe, which is carrying out the work. "On the one hand, we don't have much space here, and on the other hand we often encounter problems with diesel engines operating at altitude owing to the thin air and the cold."

The environmental and health hazards from diesel emissions were also a concern. A zero emission electric machine was the obvious solution. "Volvo CE is the only supplier that offers something of this magnitude," Melchior Burlon explains. "Otherwise, there were only excavators up to two tons and we wanted the most powerful machine for the job and something that we could still transport via helicopter if necessary."

The ECR25 electric was delivered by local dealer, Robert Aebi AG, where it was loaded onto a snow groomer. Ongoing work with the railway meant the excavator had to be towed up at night piece by piece to the station at Birg, which sits at an altitude of 2,600m. The machine was then transported via helicopter for the final and most challenging part of the way up to the summit, in what was a meticulously orchestrated process. The excavator will be used to shift the debris on the Schilthorn, load it and transport blasted material to the installation site. **PDi** special feature

OPTIMAL EQUIPMENT FOR

optimal waste handling

The waste disposal and recycling sector is growing rapidly across Europe with demand increasing for equipment to handle and recycle waste. Our feature looks at some of the developments in this booming sector.

resently, waste treatment in Europe is almost equally distributed between landfill (unsorted waste) and recycling (approx. 38% for both). It is the intention of the EU commission to reduce landfill to 10% of the total waste being handled and bring recycling to 75% by 2030, while distributing the remaining 15% onto other waste treatment methods. Therefore, within the next six to seven years, it is expected that business will double in these areas with an increased demand for equipment. We look at some of interesting cases and developments.

CASE wheel loaders crucial for waste handling in Poland

CASE introduced the 621F and 721F 'Waste Handler' models in 2016 to its wheel loader range, with customised radiators with wider fins and guards needed for use on landfill sites. Since then, it has been working closely with customers, developing and upgrading. Now new members of the range of waste specific wheel loaders can be found and customised with factory fitted options. These include as the Waste Handler guards package, with high tip buckets, central lubrication or an extended 'XR' lift arm configuration. Guard packages include articulation covers, front hose covers, transmission bottom guard and front chassis bottom guard, cylinder guards, cylinder ejectors, front light guards, rear light guards and fuel tank guard. Various types of tyres are available too, including higher tread tyres to protect from cuts and punctures and slick (non-pneumatic) tyres.

Poland is a good example where the recycling of waste is gaining impetus. With a focus on sustainability, the EU and local authorities are striving for increased recycling. CASE states that plant managers and operators in Poland have found out just how well adapted its wheel loader range is to the sector. Since the introduction of the Waste Handler sub-models, more than 120 heavy line





wheel loaders have been delivered by Polish dealers to landfills and recycling sites in the country. The majority of deliveries have happened since 2018, when the CASE distribution network was overhauled, appointing highly experienced and specialised local dealers.

CASE states that its wheel loaders' success in the recycling sector in Poland is the result of a combination of high quality, value for money and the expertise of its dealer service departments with many repeat purchases as well an increasing number of new customers. Examples of successful use of CASE products include one in Wroclaw where Ekosystem Sp. z o. o. has been using a CASE 621G wheel loader for a year. The plant, opened 11 years ago and processes 6,000t/year of biodegradable material. The 621G loads green waste into a shredder and mixer, forms compost heaps and loads material into a drum screen. It also loads compost and non-composted material into trucks. Adam, who has operated the machine from the start, said: "The CASE 621G wheel loader has been trouble free so far. The ergonomics of the cabin are very good and it was easy for me to learn to operate it. The technical parameters of the loader allow for effective work at the composting plant."

Another example is in the village of Olszowa, where the waste treatment plant ZZO-Olszowa serves 130,000 inhabitants using three Case machines. Two Case 721F wheel loaders arrived in 2015, and in 2021 a 721G joined the fleet. The machines loads waste into a bag ripper with the company praising the comfort and functionality, as well as low fuel consumption. Another example is from Radomsko, where the municipal waste

PDi special feature

treatment plant ZUOK PGK processes 40,000t/year of mixed municipal waste and 30,000t/year of biodegradable material. A CASE 721G wheel loader has been in use here since 2019. According to the operator Tomasz Zawisza, the machine gives him a very comfortable working environment thanks to a comfortable seat and a highly functional arrangement of control switches.

There are plenty more examples in Poland where wheel loaders from CASE have played a crucial role. Showing that the range can be used to process smaller amounts of waste is an example from Razdów where the municipal waste management plant ZGOK Razdów processes about 35t/year. In 2022 it bought a CASE 921G wheel loader and a few months later the 1021G - largest CASE wheel loader - joined the fleet.

www.casece.com

'Leibherr's loaders needs less fuel, are powerful with hardly no downtime'

RGS Nordic, Denmark's leading recycling company, states that it relies on an array of Liebherr 'XPower' wheel loader to help recycle construction and demolition waste materials. It operates a fleet of around 130 construction machines, about two thirds of which have been supplied by the Liebherr Group. Among them are 40 XPower wheel loaders of various sizes. Every day, more than 1,000 truckloads of construction waste and other material arrive at RGS Nordic's facilities to be converted into reusable and circular products then reintegrated into the product cycle.

Michael Jørgensen, strategic purchasing manager, commented: "The Liebherr wheel loaders need less fuel, are powerful and have hardly any downtime. We are particularly impressed that we achieve 30% more productivity with the same fuel consumption than with comparable wheel loaders in this size class." Those advantages in fuel consumption also ensure lower CO2 emissions, meaning the machines align perfectly with RGS Nordic's core values.

At one RGS Nordic site - Denmark's largest waste management site - recycling the delivered material is top priority. "We aim to make the circular economy a sustainable business," added Jørgensen. The Liebherr wheel loaders play a key role in helping the company achieve that aim. On one hand, they transport the bulky



waste pre-sorted by Liebherr excavators to the sorting plants, and on the other, feed the numerous crushing and screening plants with various construction wastes. At the end of the treatment process, the recycled material is reused on construction sites around Copenhagen.

RGS Nordic also returns the supplied, partly contaminated material to the product cycle through specialised processing operations, for example by adding substances such as calcium and by constantly shifting the piles of earth using the Liebherr wheel loaders. That function is important to ensure a reliable oxygen supply during composting. Once that operation is complete, the XPower machines load the recycled material on to trucks for RGS Nordic's customers to use as a natural raw material on a wide variety of construction sites.

www.liebherr.com



New L95 compact wheel loader from Bobcat Bobcat has introduced its new top of the range L95 compact wheel loader. The new L95 'Premium' model is said to provide the same combination of high power, intuitive controls, operator comfort, ease of use and attachment flexibility found in the L75 and L85. In addition, the L95 incorporates the very latest product updates. The L95 is designed for a number of applications, including recycling and waste management. It can travel at up to 40km/h which increases the boundaries of the job site, without needing additional resources. Bobcat states that even inexperienced operators can get to work quickly on the L95 owing to the intuitive control scheme, Bobcat's 'Flex Drive' with auto idle function, and a host of safety features such as 'Automatic Parking Brake' and 'Slope Assist'.

Bobcat states that the L95 is designed around the operator to provide high levels of comfort and safe and easy operation, with the cab offering full FOPS Level II operator protection and two steps to make it easy to get in and out of. The location of all the controls is designed to make the L95 easy and comfortable to operate even during long shifts. Controls for differential lock, turtle/ rabbit mode, boom float and auxiliary flow control are all at the operator's fingertips on the top of the joystick, meaning that all the machine's vital information display and setup screens are easily managed.

The L95 is equipped as standard with a newly enhanced 'Power Quick-Tach' system which is compatible with widely used industry standard couplers. The system has been redesigned to simplify and further protect the hydraulic connections, particularly when exchanging attachments. In addition, there is the latest version of the 'Bob-Tach' adapter for installing approved Bobcat attachments.

www.bobcat.com

New DX230WMH-7 & DX250WMH-7 material handlers from Develon

Develon has launched the company's new DX-230WMH-7 (24t) and DX250WMH-7 (25.6t) Stage V compliant material handlers. Both are designed to

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carry out the toughest tasks across a wide range of material sorting and handling applications. As a result, both machines are built with front and rear stabilisers, and a boom and arm specifically designed for material handling tasks. The new material handlers are equipped with the latest generation Develon six cylinder, turbocharged DL06V water cooled diesel engine, providing an output (SAE J1995) of 141kW at 1,900rpm. Develon states that reducing environmental impact is paramount, so the engine has extremely low emissions as exhaust gases are purified by selective catalytic reduction (SCR) technology, a diesel oxidation catalyst (DOC) and a diesel particulate filter (DPF).

A standard feature on the new machines is the hydraulic cab riser, which gives the operator better all-around visibility of the attachment and work area. When combined with the rear view camera display in the cab, the operator has excellent visibility of the job site. The new material handlers are designed to be easy to operate with ergonomic joysticks and a steering wheel. The machines come equipped with two way auxiliary and rotate circuit hydraulics to improve efficiency. The operator can use buttons on the joysticks or an optional foot pedal to control auxiliary attachments. A special Develon developed system, 'Smart Power Control' (SPC), is said to improve machine efficiency while maintaining productivity through variable speed control and pump torque control, automatically adjusting rpm according to the load being handled.

The SPC can be used with all four work modes available on the Develon DX230WMH-7 and DX-250WMH-7 material handlers. These power modes help the operator to manage the balance of fuel consumption and machine power to the working conditions.

www.develon.com

Although not loaders, worth of mentioning in this feature are two tracked crushers that are ideal for

waste handling and material recycling. They both help sustainably recycle, producing the highest quality end products at the lowest costs.

Keestrack I4e reversible horizontal impact crusher

To reduce CO2 emissions, Keestrack says it has optimised machine efficiency to deliver higher output with

less wear. Its new I4e has electric driven equipment with what the company claims are the most efficient and flexible electric and hybrid drive systems on the market. The I4e has been designed to secondary and tertiary crush with a high reduction ratio with a low energy consumption due to the drive system and design. The I4e also has a flexible electric drive system meaning it can be connected directly to the mains or be powered by a drop-off diesel/genset unit (generally in the case there is no access to the electricity grid). When connected to the grid, CO2 emissions depend on the power source. If the power is obtained from fully renewable energy, production is completely carbon neutral. When using the diesel/generator unit, fuel savings of 40% are said to be still achieved, compared to conventional diesel hydraulic crushers.

The backup diesel/genset unit can generate enough electricity to power multiple 'e-driven' machines. This means that twice the 75kW of power can be supplied via the plug out connection. When working in production trains, attributable fuel consumption is claimed to be able to decrease by 70% when hybrid scalpers and stackers are also directly powered via the diesel/genset. When connected to the grid, the savings are significant (depending on the local electricity price) because both operational costs and maintenance costs will drastically be reduced as no diesel engines are used. Also no oil is used at that time and no filters need to be replaced.

The drop-off diesel/genset unit can be placed on the chassis of the machine or besides the machine. If the unit is located approximately 20m away from the crusher, in a less dusty and vibrating environment, there is less wear and tear and it is easier to access for service and maintenance. This engine found on the I4e can be used on all new Keestrack electric e-drive crushers and can also be placed on a platform on tracks, the 'M-series'. **www.keestrack.com**



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Omega's dual power jaw crushes fuel costs

Last but not least is Omega Crushing and Screening's plug in, dual power, electric drive jaw crusher which has proved to be a fuel efficient, practical and refined choice for a crushing and screening contractor from Tipperary, Ireland. Based in Cahir, Co. Tipperary, Quarry Kit Ltd provides contract crushing, screening and heavy haulage services across the province of Munster and further afield. Among the machines in the company's fleet is an Omega J1065T tracked jaw crusher. Designed with both productivity and simplicity in mind, the J1065T has the distinction of using an electrically driven crusher unit, feeder and discharge conveyor as opposed to the more common hydraulic design. In addition, the crusher unit's single drawback rod tensioning system, combined with hydraulic wedge adjustment, has been designed to make the jaw simple and reliable. While the machine comes equipped with a Stage V/Tier 4 compliant Deutz diesel powerpack, it can also be connected to the power grid and operate without producing any emissions on site.

The nature of the sites where Quarry Kit Ltd have been using the J1065T has meant that the diesel engine is often required for power. However, even while operating this way, impressive fuel economy has been achieved. Quarry Kit managing director Niall Lenihan explains, "It's burning between 10l/h and 12l/h; compared to other machines I have which burn between 351/h and 401/h. A customer who is using a screener with a four cylinder engine has told me that the screener is using more fuel than the six cylinder engine in the Omega." This fuel saving does not come at the cost of productivity, however. Niall praises the aggressiveness of the crusher and reports that the machine is capable of producing 100mm down at a rate of 240t/h. This figure is impressive considering that, according to Niall, other crushers he has operated in the same size class have only achieved figures closer to 180t/h.

Omega's principle of simplicity continues with the design of features such as the control panel, with Niall confirming that ease of use is a strength of the J1065T. "It's a very easy machine to operate; it can be set up, moved, or folded up quickly, then you just press the buttons and away it goes," he says. While crushers generally produce quite high levels of noise, Niall mentions that the Omega J1065T impresses in this area: "Compared to other machines, it is very quiet. The engine runs at lower revs, and you can actually talk to someone while standing beside it."

The J1065T's 30,000kg weight makes transporting the machine easier, particularly useful when navigating narrow roads in rural areas. Indeed, it is possible to move the crusher using a three axle trailer, whereas a five axle unit is often required for heavier machinery. The machine's relative compactness and low weight also mean that road permits will not be required when moving from one location to another.

www.omegacrusher.com



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NEW VERSION OF BOBCAT S450 FOR MEA

Bobcat has launched an enhanced version of the company's S450 M-Series skid steer loader for the Middle East and Africa (MEA), offering a new control option for the first time in this model. The updated S450 model also comes with the 2.4l mechanical engine already in use in the larger Bobcat S510 and S530 models. The new S450 aims to build on Bobcat's track record for developing reliable equipment.

Gaby Rhayem, regional director for the Middle East and Africa at Bobcat said: "The new S450 is designed to further strengthen its unrivalled number one position in its own class and in the MEA compact loader market overall, where the company has a market share of over 50%, reaching as high as 80% in some MEA countries. As well as being the most popular skid steer loader in the region, the S450 is far and away the most reliable and as a result has the highest resale value on the market. A used S450 with four years / 4,000h on the clock will typically sell for 60% of the original price, representing an unbeatable return on investment for our customers."

The updated S450 model now offers a 'Joystick Controls' option for the first time in the standard cab version of the machine. The Joystick Controls generally allow new or younger generation operators to learn to operate the control patterns more quickly as they find them easier to handle than traditional manual controls. Another novel option for MEA in the new S450 is the availability of the 'Bucket Position' option in the standard cab version. Bobcat also offers the option of air conditioning in the cab in the new S450, a unique feature in this size of machine in MEA.

To better optimise tyres for applications, and to improve running costs, Bobcat also offers a full range of tyres for the S450, including the option of 'Versatile Duty Tyres' for the first time on this model. With their bi-directional design, Versatile Duty Tyres can be used on most common mixed surfaces, improving lifetime significantly.

Crushing and screening train turns construction waste into profits

One of Europe's leading dealers of mobile crushers and screens is undoubtedly Starloc Auvergne in France. With a proud history dating back to almost the beginning of mobile solutions, the company has embraced modern and advanced mobile crushing and screening supplying Screencore equipment. The advanced ranges have found a particular niche in France, turning construction and demolition waste into valuable products.

One of the first major global markets where Screencore products was positively embraced was France. Playing a major part in the success of Screencore in France has been the company's relationship with French crushing and screening expert Starloc. This relationship led directly to a number of compact Screencore 'XL' tracked jaw crushers and Trident 124 screeners being used to recycle construction and demolition materials.

A typical application sees in the first instance a Screencore 'XL Dual-Power' crusher being fed the demolished or excavated material, usually by an excavator or loading shovel. The Screencore XL itself is a dual power 700mm x 500mm jaw crusher designed with a compact footprint. It has proved to be ideally suited to the modern demands of a recycling contractor, rental fleet or inner city demolition/recycling site. It weighs in at just 18,250kg which means that it can be easily relocated without the need for permits. It is designed to be both environmentally and acoustically friendly while delivering impressive throughput even on hard rock applications or concrete with rebar.

Following crushing to -100mm, the material is then fed into a 17,000kg Trident 124 scalper/screener to produce 0/25mm, 25/60mm and +60mm products. In addition, any ferrous metals such as rebar or wire, are easily removed for resale/ recycling by the overband magnet on the XL crusher's discharge conveyor before being fed into the screen. In many applications the 0/25mm material is generally used for pipe bedding; 25-60mm directly as road subbase or as feed material for secondary crushing for concrete production, whilst the +60mm is used as drainage stone. The combined setup time for this crushing and screening combination is less than 30min.

Due to the easily transportable and modern nature of the equipment, French contractors and Starloc have found that the Screencore crusher and screen combination can be readily transported to where the material is. This means that the material can be processed where it originated and generally where it is needed resulting in no unnecessary emissions, material handling or transport costs. In addition, the local environment is not subject to unnecessary traffic disturbances and the overall carbon footprint of the contract is dramatically reduced.





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Dynaset got a new CEO at the beginning of 2023 when Anni Karppinen started leading Dynaset. "Our team and customers were the primary motivators that made me stay at Dynaset," she says.

CEO Anni Karppinen

Anni Karppinen has worked at Dynaset since 2008, but didn't think she would make a career there, much less be promoted to CEO.

As a fun fact, I originally started my career at Dynaset by assembling welding generators, just like my father, Reijo," Karppinen says. "Still, it wasn't my intention to create a career here. I thought that this was too 'engineering' for me." Indeed, during an internship, Karppinen regular visited Dynaset's technical director's office to ask questions about technology. It didn't take her long to decide that perhaps she'd found a place to build a career after all. "Our team and customers were the primary motivators that made me stay at Dynaset," Karppinen says. "They have given me many exciting challenges to overcome and opportunities to try and learn new things."

Starting in PR and sales

As time went by, Karppinen's responsibilities expanded to event planning and acting as a technical salesperson at trade shows in Finland; hardly an easy task given the nature of the male dominated industry at the time. Thankfully, foreign expos and customers were a different story and came to appreciate her know-how. She also earned an MBA in international business, providing valuable expertise as the company sought to expand its sales globally. In 2012, Karppinen became Dynaset's sales manager, a role for which she was essentially 'nominated' for by the company's sales team. She became executive vice president in 2018 and, four years later, mother to a daughter.

"I was surprised by how much the change in position changed my daily tasks and attitudes toward me even though most of these recurring tasks had been in my schedule before the new job," she says. "I'm grateful for how well our team has supported the change and me. The support has been essential to combine motherhood and management positions. In my current position, I get to be involved in many interesting things, which cut through all of our operations at Dynaset, and all aim to satisfy customers." Karppinen believes trust, clear goals, and vision will help the team grow. "We have excellent values and a fantastic team and want to be developing in the long run," she says. "Each Dynaset team member is essential and valuable to us. I provide support to each team member as much as needed ensuring our journey toward our vision." At the same time, Karppinen says Dynaset must maintain its culture and team spirit as the company grows. "I firmly believe that the best workplace is built together," she says. "We have a team filled with talent in each department, our company just needs to provide all the needed resources."

www.dynaset.com









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PDi site report



Selective deconstruction in the city centre

The Herzog-Tassilo-Realschule in Dingolfing is to be expanded meaning that the neighbouring dormitory had to make way. The company Karl Mossandl GmbH & Co. had been commissioned with the project and used a Sennebogen 830 supplied as a rental machine by Sennebogen Vertriebs GmbH & Co. KG.

The Sennebogen 830 E was planned to be used over a two week period to demolish the dormitory. The Sennebogen demolition excavator however only needed one week. Fa. Mossandl was so satisfied and almost a little sad when the rental machine from the Sennebogen rental park was transported back to Straubing. "I started on a Sennebogen and I will end my career on a Sennebogen," said the machine operator. "The machine has only advantages," he enthused.

A quick change system for attachments allows attachments to be changed quickly from the cab. Whether demolition grapple, demolition hammer or pulveriser or the classic demolition tongs, each attachment can be changed quickly and as required at the push of a button. The demolition grapple can be used to sort the building materials, which allows for subsequent raw material recovery and processing, as the selective demolition of a building in a built up area must always be carried out safely. The crawler track, which can also be telescoped at the push of a button, offers optimum stability, even on uneven ground.

Green efficiency is the Sennebogen motto when it comes to environmentally friendly drive technology. With rental machines from Sennebogen Vertriebs GmbH & Co. KG, there is the option of using the latest machine types that are technically up to date and have environmentally friendly drive technology. The Sennebogen machines are also designed to be easy to maintain, as all service points are easily accessible. The elevating cab, which can be tilted up to 30°, is designed to provide a clear view of the demolition object and offers the operator plenty of space and freedom of movement.



Lissmac mini crane LMK 220 in combination with masonry band saw MBS 760

To boost productivity Lissmac supplies a powerful combination of mini crane or stone manipulator and band saw that speeds up the number of strokes when setting medium and large sized masonry blocks while at the same time conserving physical strength.

With large bricks, walls grow in no time at all, but handling the blocks is tedious and also dangerous. For the necessary work steps – moving and cutting to size – Lissmac has developed has two specialists with the LMK 220 mini crane and the MBS 760 masonry band saw, which enhance their capabilities when working together on the construction site.

The LMK 220 grabs the bulky components with its stone gripper and lifts them electrically up to 4,000mm hook height, where the bulky load can be positioned precisely with a light hand in a working radius of 3,500mm. Its particular strength is said to be the rapid moving of medium and large sized masonry blocks and aerated concrete panels. The stable construction at the tip of the boom can handle a payload of 200kg plus 20kg for the gripping tool. Even under maximum load, the ball bearing slewing ring enables smooth rotation and ensures a long service life. The LMK 220 is designed to be easily manoeuvred, is also useful in confined spaces and on false ceilings with low permissible load bearing capacities.

In addition to its 880kg dead weight, there is a 400kg ballast in the form of 16 swivelling weight plates weighing 25kg each. This means that rust has no chance of weakening the masonry crane, which is designed for the toughest operating conditions. For transport, the LMK 220 can be dismantled into easy to transport individual parts with little effort. The hand operated hydraulic pump is particularly practical, as it helps to assemble and dismantle the tents in a short time and with little effort.

Lissmac's smallest mini crane and largest masonry

band saw combine to create a productivity booster for masonry work with large format elements. On the hook of the LMK 220, the planing elements float safely and accurately onto the robust roller table of the MBS 760, which can handle cutting heights of up to 760mm and cutting lengths of up to 700mm. The heavy components can be positioned precisely on the smooth running roller table for cutting to millimetre accuracy. The 1.1kW 400V motor provides the power for fast cuts through the large format stones.

The durable direct drive of the saw band impellers reduces maintenance work and operating costs. Optimally dimensioned saw band rollers are said to provide a long service life of the saw band even under continuous load. Thanks to the wheel set, the MBS 760 can be easily moved by one person. Lissmac's extensive experience is also reflected in other practical details such as the constant and optimal saw blade tension of the saw blade that is designed to ensure the best possible cutting accuracy and at the same time reduce the risk of the saw blade breaking. A quick release lock opens the saw table with just one hand movement, which speeds up saw blade changes.

With what are said to be unique features, the 'MBS' series from Lissmac has been developed to deliver high precision stone cutting technology, delivering ease of work when sawing aerated concrete and masonry.



Remondis has now ordered a mobile 'Titan' 950 and a stationary Titan 900 from Arjes, which looks forward to a long term relationship with the company.

WORKING WITH REMONDIS

After the mobile two shaft shredder was completed for Arjes' customer Remondis, it was time to prepare the machine for its road trip to the South of Germany. As one of the most important recycling companies in Europe, Remondis has set standards for years in the recycling sector. With innovative technologies and sustainable solutions, the company makes an indispensable contribution to environmental protection and conservation of resources. With about 30M customers, collecting and processing more than 30M/t of material flows per year, Remondis occupies a leading position in the German market.





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The next edition of Intermat will focus on sustainable construction solutions and technology, taking place from 24 to 27 April 2024 at Paris Nord Villepinte exhibition centre.

any large international manufacturers have already chosen Intermat to showcase their latest low carbon emission developments. To date, and since the round table event held on 20 April, leading names have confirmed their attendance at the show including AUSA, Epiroc, Faymonville, Liebherr, Magni and Volvo. They join the registered exhibitors whose participation had already been announced - Alphi, Bobcat, Cummins, IMER, Komatsu, Groupe Monnoyeur, Putzmeister, SANY, Sateco, Schwing Stetter, Sunward, Takeuchi, Topcon and Wacker Neuson.

Davy Guillemard, CEO of Volvo Construction says, "Intermat 2024 has reinvented itself to address the issues of the decarbonisation of the construction industry, adapt to environmental constraints, and advance along the road to sustainability. As these commitments are particularly close to the fundamental values and ambitions of the Volvo Group, which is resolutely determined to be a proactive leader in change and accelerate on the low carbon path, we have chosen to invite our clients and partners to meet us at Intermat 2024 to present them with all our low carbon solutions at their disposal."

François Escourrou, CEO of Wacker Neuson added: "The next Internat show, with its low carbon theme, is keenly awaited by our group which has set itself the goal of cutting its carbon dioxide emissions by 50% in 2025 compared with 2019. To do so we have opted to convert our machines to electric power to support our clients in their CSR policy. We will therefore have a lot of new products to present at Internat in 2024 in terms of equipment, with around 40 new machines in the electric range, but also in terms of associated services and digitalisation."

Olivier Saint-Paul, CEO of PL2M additionally stated: "At PL2M, the screed and rendering machine market leader, we look forward to taking part in the next Intermat 2024 and bringing our contribution to the zero carbon transition of the building sector. The event offers the chance to present new solutions that are resolutely focussed on the future, rounding out our ranges of rendering machines, fluid screed pumps and traditional screed conveyors. Our brands Putzmeister, Lancy and Brinkmann, will be showcased on our stand with a great many innovations for ever higher performances and safety on building sites, and less environmental impact."

Redesigned around the four major challenges of construction

The 2024 edition of Intermat aims to gather the entire construction industry around a shared vision of the future in order to harness the collective expertise of the construction industry. This is to address the sector's major issues in terms of decarbonisation and energy, digitalisation, CSR commitment, training and employment, and organise a platform for dialogue with the public authorities. To do so, it will draw on pillars that will offer highlights and developments featuring the main challenges for the construction industry.

The first pillar aims to find solutions to the major challenges faced by the construction industry. An industry forum event (new in 2024) aims to brings together the five main construction federations – DLR, EVOLIS, UMGO-FFB, FNTP, SEIMAT – at a series of talks and round tables with high level speakers, construction professionals, official authorities, French and international special guests. The forum aims to provide perspectives from other sectors to address zero carbon issues from all angles. The World of Concrete Europe Forum will also provide an opportunity to hear a series of talks dedicated to the concrete industry, the material and its various applications.

To recognise innovation, the Intermat Innovation Awards is a competition reflecting the sector's new challenges and will have a dedicated display area. In order to provide the media with access to the latest news, the Intermat T Press Days is two days of workshops and discussions held on 18 and 19 January 2024 between exhibitors and journalists.

The New Technologies and Energies Hub (new for 2024) will be an area dedicated to exhibitors and startups, providing a speaking platform and a demonstration zone dedicated to equipment, particularly electric powered, for a look at the worksite of the future. Two exhibitors have already registered, Theam and River. In addition, a space dedicated to jobs and training has been set aside to give a platform to occupational promotion initiatives, workshops and talks, job opportunity sessions, and so forth, whilst the Rental Day will be devoted to equipment rental with contributions from international experts.

The final pillar at Intermat is dedicated to commitments regarding how to reach net zero. Hence the exhibition will now be held over four days instead of the traditional six, with the show being redesigned to present products and services focused on the circular economy providing physical and social access to the widest possible audience.

Five hubs

The exhibition has been sub divided into five hubs. These comprise of: Earthmoving, Demolition and Transportation; Roads, Materials and Foundations; Lifting and Handling; Building, Civil Engineering and Concrete, including the event WOCE which aims to present the full value chain of the concrete industry. New for 2024 will be the New Technologies and Energies hub (electric, hydrogen, natural gas energies, autonomous vehicles, virtual technology engineering, etc.).

During the four days of the show, visitors will be able to take advantage of the demonstration zone, an integral part of the Intermat DNA, which will offer centre stage to innovative equipment operating in real life conditions.

Every real hero always has a superpower which makes him a "bomb". *Trevi Benne: explosive, for 30 years.*

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Available on subscription

Bobcat has announced the launch of the company's new machine IQ telematics subscription service in Europe and Israel. Designed to connect customers to vital machine information anytime and anywhere, the new subscription service is available in two packages for both customers and dealers.

Machine IQ has been designed to enable customers to check the health of their machines and remotely track information that enhances maintenance, security and performance. This simple and powerful tool is said to empower customers to get the most out of their Bobcat equipment, helping them to achieve more while protecting their investment at the same time.

With Machine IQ, customers have 24/7 access to crucial machine information on their smartphones or computers. Equipped with this information, customers can optimise machine use and plan jobs for maximum profitability by keeping idle times to a minimum and tracking fuel consumption. Service planning is made easy with maintenance notifications, saving operators time and money by allowing them to efficiently schedule machine maintenance and manage job sites during planned downtime.

Connecting customers to their machine data not only drives efficiency but also delivers peace of mind. Machine IQ enhances security by allowing users to create geo-fences and machine curfews, providing the assurance that their investment is protected with customisable notifications that alert users when there is unauthorised machine movement. Machine IQ has been widely adopted by hundreds of Bobcat dealers worldwide and by harnessing the power of Machine IQ data, dealers can anticipate and prepare for service needs before customers need to pick up the phone.

Dealers and customers can choose from two options: a standard package with basic telematics and a premium package with additional advanced features. According to Tomas Plechaty, Machine IQ senior programme manager at Bobcat EMEA, the subscription options let users tailor their experiences and access the level of connectivity and insights that best suit their needs. Machine IQ comes factory installed with many equipment models and can easily be installed on compatible Bobcat machines in the field. Customers should contact their local dealer to check compatibility. Bobcat customers can access Machine IQ by visiting my.bobcat.com, creating an account and logging in. Alternatively, the mobile app for Machine IQ can be downloaded from Google Play/Apple Store.

DEVELON FLEET HELPS CLEAR SITE OF FORMER INNOCENTI FACTORY

A fleet of Develon equipment has been working at the long abandoned area of the former Innocenti factory on the outskirts of Milan in Italy. The 400,000m² construction site has seen the demolition of the yards, targeted reclamation, screening and recovery of materials.

Five Develon excavators have been equipped with grapples, hammers and crushers dedicated to the demolition of floors, crushing the reinforced concrete to be able to separate out the rebar. The rubble produced is then moved for screening on site by two Doosan DL380-7 wheel loaders and a Doosan DA30 articulated dump truck (ADT). Once the demolition has been completed, part of the 70,000m³ of screened material will be used as raw material to build the base on which a new logistics centre will be built. Excess material will be sent to authorised external facilities.

All of the site's activities are managed by Turin based Unica Spa company, one of the leading Italian groups in the sector of reclamation, recovery and development of the urban and industrial areas of decommissioned industries. Unica Spa operates through four industrial divisions - reclamation, demolition, construction and projects/investments - having the necessary personnel and equipment inhouse. Unica Spa currently employs over 100 staff, and in 2022, more than 100 contracts were completed and over 110,000t of waste disposed of or sent for recovery. The company's commitment to environmental sustainability has seen it ranked in the top five Italian companies in the sector.

Unica Spa not only manages sites in the Milan area but has been active on work in Cortina for the demolition of the old ice bobsled track for the construction of the new Olympic track. For all of these activities, Unica Spa has chosen to rely on Develon machinery. Paolo Andreini, president of Unica SpA, states: "For three years we have been using Develon machines with which we are fully satisfied both in economic terms but above all in terms of meeting our needs, thanks to their undisputed quality. Our Develon fleet consists of over 30 machines, all of which we own, including excavators of all sizes, loaders and dump trucks.

"We are a well-capitalised company able to directly support investments to deal with the important orders that we continue to acquire. This policy is giving us important results, and this is possible thanks to excellent partners such as Develon and the dealer, DMO, in the figure of Gianmaria Lupis, whom I know I can count on for every need."

Gianmaria Lupis, DMO commercial manager for Lombardy, adds: "The fully trusted commercial relationship between Unica Spa and DMO is continuing to translate into important equipment orders. In just three years, DMO has supplied a complete fleet of machines, from the 8t DX85 mini excavator to the DX140LC-7 to several DX245NHD-7, to the demolition machines, as well as several DX300LC-7, DX340LC-7, DX350LC-7 and DX380LC-7 excavators, DL300-7 and DL380-7 wheel loaders and two DA30 dump trucks.

"All the numerous accessories and attachments we have are also strictly Develon. The excellent relationship with the president Paolo Andreini is also due to the fact that he knows he can count on the complementary services that DMO guarantees, such as fast rental for emergencies and the continuous specialised assistance service directly on site, essential considering the number of Develon machines constantly at work."





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