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Ø 15.0\*40 bpm

## Steel



Ø 10.2\*48 bpm

## Concrete



Ø 10.5\*40 bpm

# **Finish**



Ø 9.0\*48 bpm



Professional Demolition International Magazine

SE-191 27 Sollentuna. SWEDEN

Visitors address: Skillingevägen 14A, SE-192 71 Sollentuna, Sweden

Phone: Telefax: ISSN Registration: . ISSN 1650-979X

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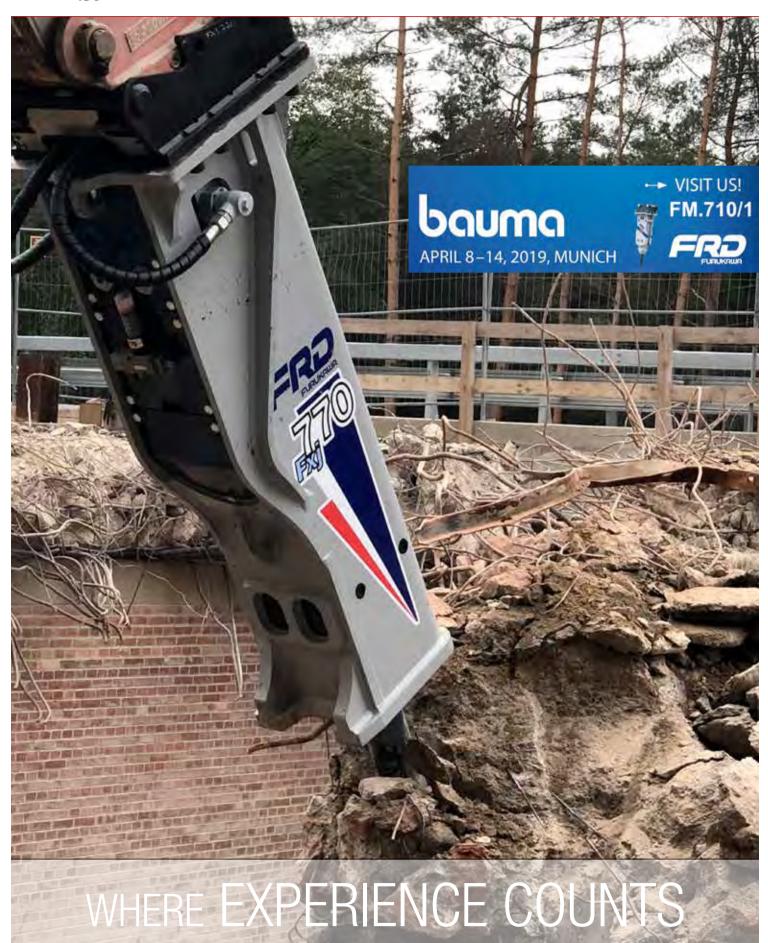
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#### Words from the IACDS President

#### Are we competitors or are we collaborators?

That's the question, as an industry, we must continue to ask ourselves and, overwhelmingly, I believe the answer has to be the latter; as we should we looking to work together rather than against each other. Of course, we will always be striving to make our own businesses as successful as they can be, but I am clear that collaboration is the only way that we will all survive, and is the only way that the industry will thrive.

Globally, concrete drilling & sawing, and demolition are facing similar issues. In Italy, the Diamond Drilling & Sawing and the Demolition trade associations are seeking to come together to ensure they stay relevant and strong enough for their members. Sweden has already taken the leap, and I hear other countries may be about to follow suit. I covered this issue around how we should work together very briefly in a column nearly three years ago (before the world became obsessed by Brexit and Trump!) and I am revisiting it now because I think it is time again to remind ourselves of its importance.

My big concern for the whole industry is the shortage of firms worldwide which are looking to grow, take on new staff, develop new skills and grow our industry. With so many companies opting to stay as micro businesses. I am worried that there is little or no succession being planned, and once the owner-manager retires there will be no business and no skillset left. Most of the guys and gals I meet at world meetings would be 'concrete to the core' if you cut them in half, and they are so busy at working in their business and doing the day to day bit they love, they give themselves no time to develop the company and, therefore, there is no future mapped out. One way of looking at that could be once the 'main man/woman' retires, it's an opportunity for another company to mop up their work and grow their business that way.

But is there another answer? Can we work better together to create a brighter future for all of us and ensure that our industry's future is protected? It's an ambition of mine to see this come to fruition and to make sure we work as one to recognise where our shortfalls are as a global industry and, together, start to put them right.

I've never pretended to be someone who has all the right answers, but I am convinced these are the right questions to be asking ourselves, and we should all be looking beyond our lifespans with our businesses and peering way ahead to try to think what our industry is going to look like. As I have mentioned previously, I believe one of our shortcomings is our industry's inability to shout about its success stories and to sell our 'sexy' industry to people - especially the young - as a career choice.



To that end, I was delighted to see that we have had record numbers of entries (and countries) for the Diamond Awards in 2019, which is a great example of how we can showcase the best of what we do and learn from one another's best practice. For our IACDS annual meeting 2019, there will be a networking event showcasing all the job stories and then the presentation of the Diamond Awards at a ceremony which will take place at bauma on 11 April, 2019 in Room B11. Pavilion B1. There will also be a dinner in downtown Munich on the night of 13 April and then, on 14 April, the annual meeting will be held close to the show at the Novotel Hotel Muenchen Messe at 9am.

All are welcome, so please come along to see what we are doing and achieving for our industry. It is a great marketing opportunity for all of our businesses and a chance, moreover, to meet with fellow companies from across the world and share ideas, best practice and to see how we can collaborate rather than compete. As to the awards themselves, for the first time this year we have an award for best product as well as best company, and I am delighted that our suppliers will be recognised in this way. We've had record entries for this award too; well I suppose that has to be the case as it's the first time we've done it!

I have said for a long time that I believe it's becoming more and more important for suppliers to be involved with us at association level, and I think a handful are now waking up to the opportunity of working with us as they can see the very tangible benefits for doing so. Where else could they network with some of their biggest customers, all in one room?

So it promises to be another fantastic bauma, where the whole industry from around the world meets in Munich and makes the most of the expertise we have from all over the globe. It follows on from World of Concrete, which was the largest show in a decade, where it was great to see everyone from all over the world and join in with the CSDA booth and events. Many congratulations to all of the winners of the Concrete Openings Awards with some incredible jobs.

One winner (or should I say two), Cutting Edge Services Corp from Ohio, and Advanced Concrete Sawing from Minnesota, stood out to me. They joined together on a hydroelectric dam project which takes me back to my point at the top around competitor or collaborator. Are they companies who are very smart who join together to get the best out of technology and their people to provide the best level of service to their customer? That's something to discuss in Munich! See you at bauma 2019.

> Julie White, President of IACDS juliewhite@d-drill.co.uk

# The bauma 'speed dating' dialogue

A new year with many new challenges, with time flying quickly meaning we are already in March. The first, at least, four months of this year are intensive, mainly due to the bauma show which will be held in Germany from 8-14 April. Already at the end of January, the press has received a glimpse of some of the new products that will be launched at the show, as per usual during a bauma year, Messe München organised its bauma media dialogue event. This time it was bigger than never.

Over 200 exhibitors gathered to provide information about their new products which will be introduced at the show. This saw over 300 journalists from different trade journals from around the world gather to collect information; it was almost like giant speed dating where the 200 exhibitors where seated at small tables. The journalists circled around the tables and took a seat as soon as there was a free spot. The 200 exhibitors that were represented at the dialogue are not even 10% of the total number of exhibitors who will be at the show in April. So considering the amount of new developments highlighted at the dialogue, the market can expect quite a large number of product launches and new solutions to be displayed at this year's bauma.

PDi is mainly focused on products for the demolition, recycling, concrete cutting and concrete floor grinding industries, whereas the bauma media dialogue event was focused on general earth moving equipment. But this time there were quite a large number of suppliers of demolition and recycling equipment. Examples of companies in our industry at the event included Allu, Arden Equipment, Atlas Copco, Brokk, Epiroc, Cat Work Tools, EMI Controls, Erkat, Furukawa, Hilti, Keestrack, Kemroc, Komatsu, LaBounty, Lehnhoff, MB Crusher, Riedlberger, Steelwrist and Volvo CE to mention but a few.

This issue of PDi Magazine is packed with information about some of the new products that will be displayed at the show. But this is just the beginning, as this is but the preview issue for bauma 2019. PDi 2 is the show issue that will be published before the show and will also be distributed from our booth located in hall A1 nr 136, and will be loaded with information and one of our biggest issues ever.

However, yet again, even though bauma is on everybody's lips right now, everything in this issue is not about bauma. As is usual in the first issue of the year, we are publishing a number of interesting features including our special feature on new crushing and screening buckets, a GPR feature and a feature on new systems for quick and easy exchange of demolition attachments. Furthermore, we have a special

feature on new handheld machinery and tools, a core drilling feature, and last but not least, our large review on the World of Concrete show that was held in Las Vegas in January. It does not stop there; we also have a number of interesting reports and a wide variety of 'news flashes'.

So what more can I say? I hope you will enjoy reading this issue, and hope to see you at bauma in April.



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





# ELITE

SERIES





DUST SUPPRESSION MISTING SYSTEM



DUST-PROOF Grinding Head



INTEGRATED WEIGHTS



LED LIGHTS IN FRONT AND BACK



NEW ADJUSTABLE Handle Bar



PHONE STATION AND CUP HOLDER

#### Words from the EDA President

# THE MORE THE MERRIER!

A few months ago, I had the pleasure of opening the international conference, 'Industry and sustainable demolition', organised by the Serbian Demolition Association (SDA) in collaboration with the European Demolition Association (EDA). I was glad to see how the Serbian association has grown and has found its place in the industry. Now it has almost 30 members, and this reminded me of its beginnings three years ago, when the EDA supported its creation.

From the EDA's perspective, we not only want to grow ourselves, but also to help other national demolition associations to be born and grow, in order to work together to get improvement in the industry. The experience that we have been accumulating during more than 40 years of professional activity allows us to be a good mentor so that new associations can emerge. The setting up, the creation and maintenance of contacts, the knowledge of the functioning of the industry, and all the others matters that are crucial in the first moments of a new association are steps through which EDA has already passed, so all the data and background collected may be very useful for new entities.

This is not the first time that we have helped a national association in its first steps. The Finnish Demolition Association (FDA) is a good example of EDA's commitment to helping more countries gain their own associations, and to spread the benefits that the demolition industry can achieve if we all work together and cooperate actively. The support we provide to associations is not only in their creation from scratch: the Irish Association of Demolition Contractors (IADC) was reactivated in collaboration with the EDA.

We feel very proud to be able to accompany new associations in their first years of life, and to continue with them along their journey, with unconditional support and long term commitment for continuity on our part. Sharing knowledge and experience is the best way to encourage organisations to develop in order to work better, all together.

#### About EDA

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

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Francisco Cobo, President of EDA, European Demolition Association



### **PD**i business



#### Atlas Copco acquires German pump distributor

Atlas Copco has acquired German Industrie Pumpen Vertriebs GmbH (IPV), the distributor of industrial pumps for the Varisco brand.

IPV is based in Dresden in Germany, with revenues of approximately €5M in 2017, and around 20 employees, with its main market being the chemical industry. "The industrial segment is key for us in order to further grow our pumps business," said Andrew Walker, business area president of Power Technique.

"The acquisition will strengthen our presence in the north west of Europe."

The purchase price is not material relative to Atlas Copco's market capitalization and is not disclosed. The acquired business will become part of Atlas Copco's Power and Flow division in the Power Technique business area, and legally be part of the Atlas Copco German holding company, Atlas Copco Holding GmbH.



#### **Leading Finnish recycler invests in Allu Transformers**

The exciting capabilities of the Allu range of Transformers have seen leading Finnish recycling company, Remeo, invest in a D series attachment. The processing power of the Transformer has proven to be particularly effective in dealing with demolition waste and recycling asphalt.

The Allu Transformer series comprises of an excavator/ loader/ tractor mounted processing bucket which screens, pulverizes, aerates, blends, mixes, separates, crushes, feeds and loads materials. This results in the feed material being effectively transformed into highly valuable products, making any business more efficient, and more profitable.

Catering for applications of all sizes, and capable of processing any material that can be screened and sorted, the Allu Transformer series comprises of the compact DL & D Series, as well as the truly massive M and G Series. All are designed to transform the way in which material handling and processing businesses are able to improve their efficiency and profitability.

The Allu Transformer, whatever its size and configuration, is ideal for recycling, processing concrete, waste, soil, sand, rocks and minerals as it also aerates, as well as screening, loading and crushing, all of which can be carried out on site. This truly mobile solution provides the versatility and flexibility to enable work to be accomplished more efficiently even in the most challenging environments. This results in substantial savings in material and transport costs, as no time is lost when waiting for replacement material.

One such company that has been keen to take advantage of the Allu range is leading Finnish environmental management company, Remeo. The processing power of the recently acquired D Series Transformer has proven to be particularly effective in dealing with demolition waste and recycling asphalt.

Remeo employs in the region of 350 people, and utilises a specialist fleet of recycling fleet of equipment consisting of over 200 vehicles. With offices located throughout Finland, the company's comprehensive collection network channels waste for recycling to its nine recycling stations. Materials are here recycled and treated in plants before being delivered for appropriate further handling, or for processing as an industrial raw material.

The Allu attachment has enabled Remeo to utilise its existing fleet of excavators and loaders to deal with materials either on site, in the case of demolition waste and road planings, or load screened material directly onto its haulage fleet. As the processing power of the Allu Transformer reduces weight by up to 50% (by screening out valuable materials prior to hauling) this increases the efficiency of its operation, as well as reducing emissions from its haulage fleet.

Remeo processes the waste it receives into valuable products at its recycling centres that are resold and reused. Any materials that cannot be recycled are much reduced, thereby reducing any landfill costs by up to 80%. This makes Remeo's investment in Allu Transformers both environmentally friendly, and highly cost effective.



# ZENESIS

WORLD'S MOST ADVANCED PATTERNED DIAMOND TECHNOLOGY









# **PD**i business



#### **New French subsidiary** for Steelwrist

Swedish tiltrotator and work tool manufacturer Steelwrist has strengthened its presence in the French market by establishing a local company. Steelwrist France SAS. This is in direct response to the continuing growth of the French market for tiltrotators, with Steelwrist now consolidating its presence in a market of high strategic importance. The company has had its own organisation in France for some years, but has now further formalised its activities through the establishment of a local company, Steelwrist France SAS. "We are pleased to take this important step in growing our organization by establishing a formal entity in France," says Nicolas Proust, France country manager. "This will allow us to more immediately and thoroughly meet the needs of our customers in the region. We look forward to continuing to grow and expand in France."

The new company address is: Steelwrist France SAS, 27 Place Victor Schoelcher, 91300 Massy, France.



The official opening ceremony for the new Wacker Neuson production plant and R&D centre in Pinghu, near Shanghai, took place at the end of November 2018, two years after the initial ceremony. Over five hundred guests including government representatives, suppliers, dealers and their customers from around the globe attended the ceremony and accompanying events.

China is a key market for the Wacker Neuson Group, offering future growth potential especially for mini excavators and construction equipment. Reflecting this importance, the company has opened a new production site along with a local research and design centre in Pinghu. The decision symbolizes the group's long term commitment to its customers and partners in China, with at the same time, Chinese customers being closely involved in the development of locally produced compact and construction equipment.

This regional engagement was praised by the many guests attending the event, including

Hailong Qi, the secretary of the Pinghu Municipal Committee of the Communist Party of China, who was a key supporter and advisor during the project, and Su Zimeng, general secretary of the China Construction Machinery Association (CCMA). "It is a great honour for us to see so many guests at the official opening of our plant in Pinghu. We are proud of the results and of the fact that we are now even closer to our Chinese customers. Our presence here will enable us to meet their needs even more effectively and offer services tailored to the region," enthuses David Wei, managing director of Wacker Neuson China.

Wacker Neuson has been distributing construction equipment in China for over twenty years, and has established a robust sales and service network over the decades. "We have identified strong growth potential in China. Rising demand for improved infrastructure, the expansion and modernization of the country's road and rail network, plus increased focus on more efficient, environmentally sound compact equipment in this country are further proof that we have made the right decision. The opening of our factory in Pinghu is an important step and a well-timed move for Wacker Neuson." explains Martin Lehner, chief executive of the Wacker Neuson Group.

Production at the new plant began in 2018 with 1.7t excavators, followed during the year by other models including construction equipment products and - more recently - larger excavators. The company is distributing all products manufactured in Pinghu via its existing dealer network, which will be further expanded. In addition, Wacker Neuson Group has also entered into a partnership with John Deere, and is now manufacturing mini and compact excavators in the 1.7t to 7.5t class at the factory in Pinghu. These machines will be marketed under the Deere brand, and distributed via the John Deere dealer network to customers in China, Australia and selected countries in Southeast Asia.

The Pinghu plant's strategic location between the cities of Shanghai and Hangzhou, coupled with good infrastructure, are key benefits of the new site. Covering an area of around 135,000m2 with around 30,000m2 of building space, the site is home to the production plant, research and development teams, quality management, logistics, sales and service as well as a training centre and administration functions.

#### THREE NEW FEATURES FOR USER SAFETY

#### INTERFACE

The new interface is developed for work at a safe distance. You operate the robot through the interface on the robot or on the remote control box. They are identical. The interface consists of two separate parts, one focused on operation and the other focused on service. The settings are easy to reach with just a push of a button.

#### COLOR DISPLAY

The color display located on the robot is a 7" screen with a resolution of 800 x 480 px. It has nine push buttons and a rotary encoder. One of the most important updates is that you maneuver between controls and options using a rotary encoder instead. The color display will be available on all of Conjet's 7 series robots.

#### REMOTE CONTROL BOX

The remote control box, Conjet Color Display, is equipped with a 4,3" LCD color display with 2 mm thick, protective Gorilla glass and a resolution of 480 x 272 px. It utilizes the surrounding light to give a sharp and clear image in more difficult environments. The technology is developed to be electricity-saving. The operator no longer has to be close to the robot during operation. Instead, the operator can control every aspect of the hydrodemolition at a safe distance



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#### New industrial engine plant in India

Yanmar has announced plans to establish a manufacturing plant in Chennai. India to produce industrial diesel engines. Yanmar Engine Manufacturing India Pvt. Ltd. will operate the plant from 2020 from the Origins industrial park in north Chennai, manufacturing industrial diesel engines with an estimated annual production of 80,000 units. "With today's announcement of this, our first manufacturing facility in India, Yanmar has taken its investment in the country to the next level and demonstrated our long term commitment to the sub-continent," said Yanmar Engine Manufacturing India project head, Hajime Hirai. "We expect that this plant will fuel Yanmar's future growth and directly contribute up to 400 quality jobs to the community."

The choice of site reflects the high skill levels of the Chennai workforce, a developed component supply chain, and robust infrastructure including port and rail facilities. "This new facility will manufacture high quality engines utilising the latest Japanese production technologies," said Yanmar's Varun Khanna. "These quality engines will allow us meet the growing demand of Indian and overseas markets."



### **New managing** director for Allu **Germany**

Allu is pleased to announce that Patrick Püschel has been appointed as its new managing director for its German subsidiary, Allu Deutschland GmbH. Patrick's appointment is seen as a key development which will help continue Allu's impressive growth in Germany. "With all his experience, his drive and his focus on understanding the needs of customers, I am sure Patrick will contribute greatly to Allu's continuing success in Germany and German speaking countries," says Allu president Ola Ulmala. Patrick Püschel himself says of his new position: "Allu is the leading name in the attachments business in Germany. Its reputation is without equal, and I am proud to play my part in bringing Allu solutions to more businesses throughout Germany."

# Hilti achieves double digit sales growth

The Hilti Group has reported sales of approximately €5.1B in 2018, this being a 10.7% increase on the previous year.

2018 was an important year for the Hilti Group, with substantial investments being made in order to lay the foundation for long term profitable growth. With double digit sales growth being reported, the company is said to have reached its goal. However, due to the continuing global trade tensions, company chief executive, Christoph Loos, sees potential problems in 2019.

Hilti Group sales increased 10.7% when compared to 2017 (in local currencies, sales grew 9.8%). In Europe, Hilti achieved strong sales growth of 10.6% in local currencies, with the only exception being the United Kingdom, where Brexit is creating uncertainties in the construction industry. North America again saw double digit sales growth (+10.4%), while Latin America continued its upward swing with an increase of 8.6%. In Asia Pacific, sales grew 7.0%, and despite of the challenges in countries such as Turkey. Russia and Saudi Arabia, the Eastern Europe / Middle East / Africa region saw sales grow by 9.3%.

The Hilti Group supplies the worldwide construction industry with technologically leading products, systems, software and services that provide construction professionals with innovative solutions and superior added value. The group employs more than 28,000 team members in over 120 countries. Hilti's corporate culture is based on integrity. teamwork, commitment and the courage to embrace change and is headquartered in Schaan, Liechtenstein.

#### Okada America, Inc. and Rotar **International BV** announce alliance

Okada America, Inc. and Rotar International BV have announced that they are entering into an alliance of their demolition attachment businesses in North America. Effective as of 1 January 2019, the alliance was created to offer customers more options in demolition, recycling and scrap yard attachments, as well as strengthening both Okada and Rotar distributor networks and their ability to service existing and future customers. The operating alliance will see Okada provide sales, service, parts and warranty support for Rotar products, along with continuing to support existing Okada products in the field.

Okada America, Inc. is a leader in innovative construction product technology. Through more than 200 U.S. and Canadian distributors, Okada offers a complete line of excavator, loader/backhoe, skid steer, track, compact utility loader and mini excavator mounted attachments. These include breakers (TOP series and ORV series), crushers. demolition shears, pulverisers, processors, grapples, compactors (OAC series) and screening buckets, along with a pedestal rock breaker boom system line.

Rotar International, BV is a high technology manufacturer of advanced products in the demolition, recycling and scrap markets. Rotar is a supplier of high quality demolition, steel scrap recycling and material handling hydraulic attachments, producing innovative products and with the highest quality standards.



#### Katsuii Shibuva 1928-2019

On 2 February, 2019, Katsuji Shibuya, founder and chairman of Shibuya Company, sadly passed away at an age of 91. Katsuji Shibuya was the father of Norikazu Shibuya, who has now taken the role as chairman of the company whilst remaining its president.

Katsuii Shibuva had a long and exiting life, with his work greatly contributing to the Japanese city of Hatsukaichi, located outside Hiroshima. He started his professional life as a teacher, but in the 1950s left teaching and started to sell agricultural tools and machines, becoming a distributor of Kubota agricultural machines. He was very successful in his business, and became the number one distributor for Kubota agricultural equipment in Japan.

During the 1960s the city of Hiroshima, and the whole region, transformed, with new types of manufacturing industries evolving, and concrete becoming a more and more common construction material. Katsuii Shibuva wanted to be part of this development, and began production himself in order to become less dependent on other manufacturers. He identified an opportunity after selling US Rigid and Milwaukee's machines for many years, which led in 1969 to establishing production of drill motors, with the first being the TS-1. After a couple of years, TS-1 was remodelled providing a sales boost. The demand for concrete sawing and drilling equipment increased dramatically. and alongside successful production and sales the company grew rapidly. During the first two decades, Shibuya products were mainly sold domestically, but the export business started to grow after 1978, and today Shibuya products are sold worldwide.

PDi Magazine and staff would like to express their deepest condolences to the Shibuya family; they are in our thoughts and prayers. We would also like to express our thanks to Katsuji Shibuya for what he has given to the global concrete sawing and drilling industry. May he rest in peace.

Jan Hermansson

### **Record robot order for Brokk**

Brokk has received its biggest ever order in the company's 40 year history. A grand total of 60 Brokk robots with multiple tools and attachments will be delivered to a customer in Asia by Brokk's Security & Rescue business area

For many years. Brokk robots have become well known in the construction, process, mining and tunnelling industries, but what is less well known is that Brokk robots are also used in post disaster recovery applications. In these situations, which falls within Brokk's Security & Rescue business area, the Brokk robots are used in activities following natural disasters, severe accidents, terrorist attacks, and related occurrences.

Brokk's proven machinery with technology for both short and long distance remote control, removes the operator from the high risk areas the machines are intended to work in. Furthermore, after a disaster

event, it is difficult to predict exactly what challenges are being faced. Then the Brokk machines' capability to easily switch and use a wide variety of tools proves to be highly valuable. The ability for one machine to move, lift, demolish, cut and dig its way through difficult conditions and terrain is what makes Brokk robots the perfect solution for a variety of rescue and recovery undertakings

"Following the initial rescue work after a disaster there comes the challenge to get the infrastructure back up and working again. This clean up and rehabilitation work can go on for an extended period of time. Our robots have the capacity and flexibility to be used in both phases," says Martin Krupicka, chief executive of Brokk. The ability of the Brokk robots to work in this field led to the record order, and is the result of several years of work, with deliveries being scheduled for later in 2019.

#### Peter Flury-Fuchs 1946-2019

PDi Magazine is sad to report that a great concrete cutting professional passed away on 14 January, 2019. PDi staff would like to express our deepest condolences to the Peter Flury-Fuchs family at this sad moment, be assured our prayers are with you, and may Peter Flury-Fuchs rest in peace. The funeral was held 22 January in the Kurzdorf church in Frauenfeld. Switzerland.

These are some of the words from his memorial:

Es ist schwer, wenn sich zwei Augen schliessen, Zwei Hände ruh'n, die einst so viel geschafft, Wie schmerzlich war's, vor dir zu steh'n, Dem Leiden hilflos zuzusehen. Schlaf nun i Frieden, ruhe sanft und hab für alle Liebe Dank.



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#### Here is PDi's annual feature comprising of new crushing and screening buckets for demolition and recycling applications. Jan Hermansson reports.

As the construction and civil engineering market in the western world becomes increasingly circular, machines and equipment are being developed in parallel, with a focus on 'circular thinking'. The equipment is increasingly flexible and easily adapted to the task at hand, with a good example of this being the supply of buckets for crushing and screening, for instance, of demolition materials. This has seen the number of manufacturers increasing with the models being increasingly adapted to cater for a larger variety of applications and materials. The capacity of the buckets has also changed significantly enabling large and small amounts of material to be effectively processed in a short time.

According to tradition, PDi Magazine annually publishes a special feature in the first edition of the year where the latest news in this field is presented. Generally speaking, most of the companies that develop and manufacture tools for demolition, such as hydraulic hammers and other types of hydraulic demolition tools, also sell hydraulic buckets for crushing and screening. In addition, there are a number of companies that specialise in the development and manufacture of crushing and screening buckets only. These manufacturers are MB Crusher, Simex, Hartl Crusher, Allu, BAV, to mention a few. Below we feature some of latest news including developments that have been launched or will be launched in the near future.

One of the biggest players in crushing and screening

buckets is Allu from Finland, with its Transformer line including models optimal for crushing and screening demolition debris. As the bauma exhibitions approaches, Allu is not revealing anything other than that there will be new products launched at the show. What the company does reveal though at this stage is the upgraded Allu mobile app has new functions aimed at helping customers improve productivity and jobsite safety, whilst also providing enhanced customer service. Further the Allu TS blade structure will come with two fragment sizes and a new blade thickness of 8mm. Further Allu new features include the TS doubling / tripling new blade variations for combinations of between 8mm right up to 105mm providing more possibilities with just one Allu. Allu has developed the patented unique the TS blade structure, further cementing its position as a pioneer in the field. The TS blades are a modern development for the screener / crusher market, with Allu set to deliver new levels of efficiency and productivity





# **BLASTRAC**



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# **PDi** special feature



increases productivity, enabling smooth material flow which provides increased produc-

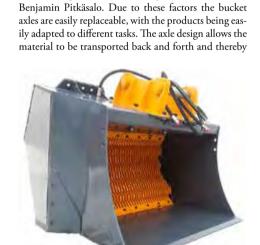
> tion. Eight basic models and a series of axle variants for diggers between 5t-40t, and wheel loaders from 3t-30t comprise the company's screening bucket series, Brown SB. The various exchangeable axles can be adapted for the screening of topsoil, peat, sludge, contaminated material and so forth. The mixing axles are suitable for screening bio waste, sticky materials, bricks, glass, clinker, compost and more, with the axles for crushing being suitable for

**MB Crusher** Italian manufacturer MB Crusher does not need a detailed introduction and it was the company that put mobile crusher buckets on the map. The manufacturer now has an extensive range of buckets for both crushing and screening. In terms of new developments, the manufacturer informs that at the bauma show in April its products will be exhibited in three places. Outdoors in booth FN 832/9, where there will be product demonstrations aimed at crushing, screening and cutting including the new MB-R500. Furthermore, products will be displayed between the halls A6 and B6, and in hall B5 at booth 424. MB Crusher further announced that during the fair, it will reveal a large and revolutionary development, but does not wish to comment more before its launch at the show. The aforementioned MB-R500 is a new milling head intended for diggers, backhoe loaders and compact loaders between 3.5t and 11t.

#### www.mbcrusher.com

#### Prodem and bph attachments

British manufacturers Prodem and bph launched as recently as January this year a new series of rotary screening buckets called PSB-R. According to the manufacturer, the series has a competitive price without sacrificing quality, and is ideal for screening different types of waste for demolition, construction, organic waste, landfill and other associated applications. The series comprises of nine new models and is designed for carriers between 2.5t and 75t being suited for in-situ use of residual materials, thereby keeping costs down. The ranges' construction includes a newly designed profile for the material intake that facilitates loading. The PSB120R model (and upward) is provided with a tapered bottom



player in the market, is Green Attachments which

produces tools for demolition and recycling purposes. Besides manufacturing traditional demolition and

recycling tools, Green Attachments also make buckets

for screening, mixing and even crushing applications.

"Our range maintains a high material quality, and at the

same time, a really low weight. The newly developed box

design allows for an extra large volume, which results in increased capacity," says the company's chief executive





to increase the screening area and maximise productivity. Other important features include an integrated relief valve that protects against greatly increased oil flow, and protection for hydraulic components, which at the same time are easy to maintain. The buckets are also provided with a four part view mesh that can be replaced quickly and safely. The screener's bearings' are double to reduce the risk of wear and tear. The screening drum is extra protected to reduce wear from material, with the wear parts on the bucket being bolted to make the work of replacing wear parts easier and faster, which minimises down time and increases production. The series is also available for use with wheel loaders.

www.prodem-attachments.com



en.shinhandia.co.k



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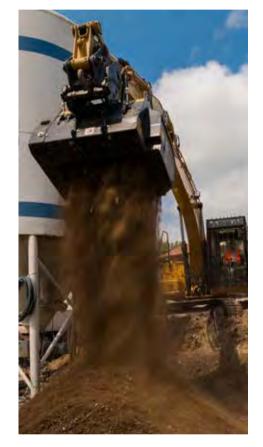


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# **PDi** special feature







#### Simex

Italian manufacturer Simex has developed and launched various unique types of buckets for crushing and screening, thanks in part to many patents, since the launch of the first screening bucket in 2015, VSE 40. VSE 30, VSE 20 and VSE 10 followed on from the first model. The VSE 20 is intended for carriers between 12t-18t, whereas VSE 10 was developed for carriers between 8t-13t. All buckets have an excellent weight to capacity ratio, and are excellent for crushing, screening and recycling in demolition applications. Simex's series of crusher buckets, CBE, have been developed to be real workhorses in the workplace. CBE 50 is the largest in the series, which consist of the CBE 10, CBE 20, CBE 30 and CBE 50 models, with the latter being designed for 38t-55t carriers. What is especially unique about the CBE 50 is its crushing effect, which can be as much as 190 kN at the crushing teeth. The bucket is equipped with a rotor with crushing teeth, with the crusher being activated with hydraulic piston motors with

direct drive without reduction gears. The crusher has a capacity of 1.80m<sup>3</sup> and has a wide jaw opening that allows smooth loading, producing an end product of between 0-80mm and 0-140mm.

#### www.simex.it

#### VTN Europe

The Italian manufacturer VTN Europe has been in business for almost half a century. At the bauma show it will announce a number of new equipment developments will be launched. However, the company does not want to say exactly what is going to be launched at this stage. PDi's feeling is that these developments will comprise of new crushing and screening buckets. What we know though is that VTN will launch its new CK 22 combi crusher, as well as a new fixed secondary crusher called VF 23HM. VTN will also launch a new quick coupling system for hydraulic demolition attachments called Link-o-Matic.

www.vtneurope.com

#### **Xcentric Ripper**

Another player that has gain ground in the hydraulic crushing and screening buckets field is Spanish manufacturer Xcentric Ripper, which is based in Vitoria-Gasteiz in the central north region of Spain. The company's line up of seven crushing buckets range from the XC15 to XC60 for carriers from

13t to 85t in weight. These compact and powerful crushers weigh from 2t to 10.5t depending on the model. The crushing buckets possess a unique design with (patent pending) technology that applies a high inertia power train, circular jaw movement and a 'new and easy' anti stagnation plate. This plate prevents large shredding pieces from getting stuck in the mouth of the bucket, not allowing them to enter the crushing jaws. The manufacturer also offers three screening bucket models: XS20, XS40 and XS50 for carriers from 18t to 55t with operating pressures from 20MPa to 25MPa. These attachments are quite lightweight weighing 1,550kg, 2,200kg and 4,730kg respectively.

www.wcentricripper.com





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# **Building on experience**

Pentruder is designed and manufactured by Tractive AB, a Swedish family owned company specializing in design and manufacturing of two different product lines, Pentruder concrete cutting machines and Tractive motorsport transmissions "The same kind of transmission technology for transmitting power is used in both product lines." states Anders Johnsen, owner and Chief Designer at Tractive.

We have over 40 years experience in design, development, and manufacture of high quality and highly stressed gears and transmissions. We have developed special gear geometry designs and our gears are strong enough to handle the torque they transfer. Thanks to extreme precision in the manufacturing process, the gears work with very little friction against each other. This is important for high power and durability

# The Pentruder Family

Pentruder concrete cutting equipment is shipped world wide on a daily basis. We are a constantly growing family, and the Pentruder machines are currently used in over 40 countries. Pentruder products are built to last. With the right maintenance it will be a productive tool for years and years.

Service workshops with Pentruder trained and authorized technicians are located in over 25 countries.



# TO PERFORM

# We are not restricted by what has already been done

We are not restricted by what has already been done. Therefore we think in new and untraditional ways, innovative designs tempered by experience. Our strength is to use advanced but reliable technical solutions. This, in combination with the possibilities given by sound engineering principles and modern simulation tools, creates products which are ahead in their field.

Possibilities and willingness to go outside traditional boundaries in the design process are key factors for innovative design.

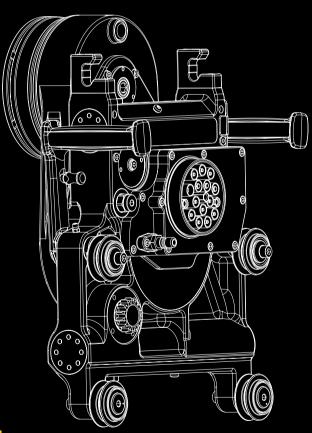
## Modular, powerful and light weight - the new HFi system from Pentruder

When designing this concept, Pentruder had user friendliness, power to weight ratio and reliability as top priorities. And we didn't give up until we reached our goal.

The Pentruder HFi system is the perfect combination of low weight, high power and ease of use. Built to perform for years to come.

Features like integrated drive motor, only one sturdy connector on the machine and a small light weight Pentpak which will drive a range of products will make the everyday work of the operator easier. Use the same track system as with the HF machines for maximum modularity. Shorten setup times and increase your productivity with Pentruder!

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# Hitachi bucket and Genuine GET

A Romanian construction firm has equipped its new ZX250LC-6 medium excavator with a Hitachi bucket and Genuine GET (ground engaging tools) to help improve productivity on a demanding project in the south of the country. The machine was delivered to SC Agremin Transcom 99 Srl (Agremin) in October 2018, with the excavator helping to expand a car manufacturing plant in the town of Mioveni.

#### A versatile machine

Delivered by Hitachi's authorised local dealer Utirom Invest Srl, the ZX250LC-6 is being primarily used for earthmoving, which begins with the precise excavation of topsoil. Trenches are subsequently created adjacent to the existing plant in order to lay foundations for the new buildings. Once each channel has been excavated, a crane carefully lowers the supporting steel structures into place. Thanks to its versatility, the Zaxis-6 excavator is also being used to load trucks, level the ground, and perform grading when required. The ZX250LC-6 is typically required to handle dense material, which predominantly consists of rubble and other concrete debris.

"The size of the Hitachi bucket is 1.53m3 and I have been impressed by the high fill rates," says Agremin's owner Marcel Pruiu. "When compared to local manufacturers, it is clear that the Hitachi bucket is of a superior quality. Its configuration is perfectly matched to the ZX250LC-6's capabilities and the digging force is excellent. One of the most satisfying aspects about Hitachi ownership is the overall package it provides. I have been highly satisfied with the bucket, GET and the ZX250LC-6 itself. I insist on using Hitachi genuine parts to uphold the high performance of the machine, and Global e-Service to check the fuel consumption. I was pleasantly surprised by the value of the data to me as a business owner."

#### **Unique excavators**

The ZX250LC-6's operator, Nica Cornel, also believes that the Hitachi bucket and GET are positive features of the new machine: "The bucket is ideally suited to the work we are doing, because the breakout force and level of penetration are terrific. This is helpful when handling the tough materials. In terms of maintenance, the teeth are straightforward to change and the wear is consistent. I have been an operator for 32 years, and I have to say that Hitachi machines are my favourite. Its excavators are unique because they are set apart by their power, low fuel consumption and reliability."



# High speed innovation at bauma from Cedima

Cedima GmbH will present a selection of products in Hall A1 at bauma 2019 under the slogan of 'high speed innovation'. This will include the company's expanded range of joint cutters based on new engine and exhaust technologies.

#### **New joint cutters**

With the launch of the CF 6030, Cedima has developed a powerful joint cutter in the 100HP range. Two engines for the same platform are available, an 82kW and 100kW, together with a new suction plant that can be used for both of Cedima's CF 6021 and CF 6030 variants. The company's range of large and medium size floor cutters has been supplemented by the new CF 4030, which represents an important development as the replacement to the current CF 3002, with increased output of 41kW. With the option of using a 45kW petrol engine, the CF 4030 is also available as a powerful retrofittable green concrete machine with suction plant.

#### Micro trenching and drill trailer

Another new development is for micro trenching in order to provide fast and cost effective production of small trenches for laying glass fibres. The well proven CF 5030 MT has been extended to a four wheel drive version, whilst the CF 6021 MT, for use on longer distances, will in future also be available with an optional cable plough. With the BW 443, Cedima has added to its drill trailer offering. This is self-propelled, with horizontal drill head adjustment, making it suitable for the production of extensive airfield lighting systems.

#### Trade products and wall saws

Numerous innovative trade products for retailers will be shown at bauma. These include the newly developed construction circular saw for cutting wood, a band saw, a galvanised table saw and new small joint cutters in combination with its extensive tool portfolio. For wall saws, the WSx-296 and the WS-296 have been further developed, and are now equipped with a strong blade drive motor up to 20kW. In addition, a new user friendly control unit, the HFx-18, has been developed that can be operated on both the 16A and 32A mains. In addition, the corresponding remote control with colour screen makes the sawing process much easier, with all important parameters being displayed directly and in real time. An improved automatic function and increased cutting speed considerably improve ease of operation.

#### New method

Also being debuted at bauma is Cedima's 'Future grinding', which is a new method for processing concrete surfaces on motorways and airfields. This special grinding shaft provides improvements in grip, noise reduction and overall texture. As a result, the German Federal Highway Research Institute has announced a research project to assess the benefits of the system.

# Volvo CE goes electric

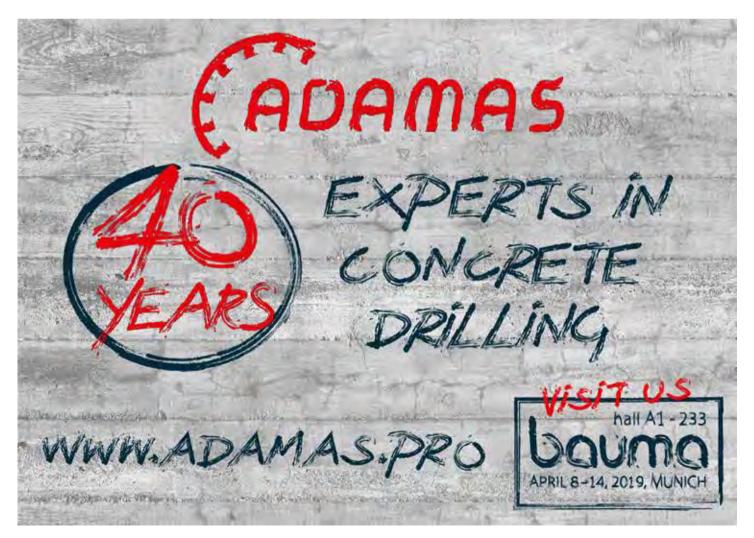
Volvo Construction Equipment (Volvo CE) has announced that in 2020 it will start the launch of an electric range of Volvo branded compact wheel loaders and compact excavators.

Volvo CE has announced that by mid-2020 it will begin to launch a range of electric compact excavators (EC15 to EC27) and wheel loaders (L20 to L28), ending new diesel engine based development of these models. With this move, Volvo CE is the first construction equipment manufacturer to commit to an electric future for its compact machine range. This follows the positive reaction of a number of concept machines in recent years, and by working closely with customers. The move is aligned with the Volvo Group's strategic focus on electro mobility in all business areas. The first machines will be unveiled at the bauma exhibition in April 2019, followed by a staged market-by-market introduction and ramp up in 2020.

While the company stresses that diesel combustion currently remains the most appropriate power source for its larger machines, electric propulsion and battery technology is proving particularly suited to Volvo's smaller equipment. With research and development investment now focused on the rapid development of its electric compact wheel loaders and excavators, Volvo CE is taking a step towards diesel free compact equipment in the future.

"Volvo CE is delivering on its commitment of 'building tomorrow' by driving leadership in electro mobility and delivering sustainable solutions that support customer success," comments the company's president, Melker Jernberg. "The technology we have been developing is now sufficiently robust and this, together with changes in customer behaviour and a heightened regulatory environment, means that now is the right time to commit to electro mobility in our compact equipment ranges in the future."









#### World of Concrete 2019 offered plenty of product news and intrigue about the industry's long term health. PDi's editor Jim Parsons reports.

Blustery winds dominated the opening days of World of Concrete 2019, reflective of the whirlwind of activity at what organisers say was the largest show in more than a decade, and, perhaps, a portent of the uncertainty that awaits North American's construction industry in the coming months. To be sure, optimism was pervasive among the more than 1,500 exhibitors and 60,511 attendees, even if the wintertime Las Vegas temperatures offered only slight relief from the snowy, polar vortex conditions dominating other parts of the U.S.

'We're upbeat about the construction market in North America and globally for this year, and 2020 too," observed Henric Andersson, president of Husqvarna's Construction Division, which had its largest new product roll out in several years. Though Andersson admits some 'dark clouds' loom in the form of tariff and trade issues, he believes the foundations are strong. Those sentiments were echoed by Avi Kahn, president and chief executive of Hilti North America, which subsequently reported a 10.4% increase in sales during 2018. "We continue to invest in productivity features, in recognition of the skilled labour shortage," Kahn said.

There were reminders that a nearly decade long construction boom in the U.S. may finally be losing some momentum. Stanley Black & Decker, Inc. became the latest major construction equipment manufacturer to pull back profit estimates for the coming year, a move that could threaten its acquisition of demolition attachment makers Genesis and Paladin which was announced last August. On the other hand, market uncertainty

hasn't prevented other types of acquisitions from going forward. Kinshofer celebrated World of Concrete by finalising its acquisition of Hammer srl of Italy. North America sales manager Dany Martin explained that along with rounding out Kinshofer's tools portfolio, the acquisition is a natural fit between the two companies. "They have the same approach to quality, and offer



every feature that our customers want." Martin added that while the new hammers may not be least expensive on the market, "We can prove that they're worth it."

Among the nearly 260 first time World of Concrete exhibitors was Avant Tecno USA, Inc., the North American branch of the Finnish compact equipment maker. President Jukka Kytomaki explained that after seven years in the U.S., the company is ready to raise its profile in the demolition market, with innovations such as a cab design that places the driver at the front of the frame, thereby increasing lifting capacity, stability, and visibility. "We see a huge potential in the U.S. market," Kytomaki said. "We offer lighter machines that can do the same job as heavier models, plus the availability of more than 200 attachments."

#### Abundant automation

Appropriately for its milestone size, World of Concrete 2019 showcased a number of major project announcements. Brokk made its largest ever North America product launch with a four model upgrade to its line of remote control demolition machines. Three machines are electric powered: the 1.6t Model 170, the 2t Model 200, and the 3t Model 300. The largest new entry, the 5t Model 520 diesel, replaces Brokk's Model 400. All incorporate design improvements such as hardened components and fewer internal electrical connections, which the company says contribute to increased impact power and operational reliability, as well as greater project versatility.











Topping, or in this case, tipping it, was Brokk's announcement of its new eight model BHB hammer line. These range from the 50kg BHB 55 breaker for the compact Model 60, all the way up to the 700kg BHB 705 for the recently introduced Model 500 and Model 520D. As with the Brokk machines themselves, the series features a high power to weight ratio, with lightweight hammer bodies machined from a solid casting, eliminating side and through bolts, along with side plates found on many other hammer designs. "The combination of upgraded demolition robots and custom hammers puts more power in smaller packages," said Peter Bigwood, vice president of Brokk, Inc. "Now you have a 2t machine in the Brokk 200 ideally matched with hammer that might otherwise require the power of a 3t machine."

Sharing Brokk's spotlight was its hydrodemolition specialist company, Aquajet Systems, which debuted its compact Ergo System for small jobs and confined spaces. Consisting of a 4.2kW controller unit and power head that manipulates a high pressure lance from a horizontal or vertical frame, Ergo System exerts 1,000N of reaction force which is approximately half that of Aquajet's largest hydrodemolition robot. "Ergo also eliminates the safety hazards of hand lances, while also providing more consistent concrete removal depths," Bigwood said, noting growing U.S. interest in hydrodemolition has helped Aquajet double its sales over the past two years. "Aquajet products have brought a higher level of sophistication to water demolition."

Complementing this trend, Conjet AB released a new graphical user interface that simplifies operation of its Conjet 7 series robots. Integrated into both the machine and its remote control unit, the new interface complements more intuitive controls with instant feedback on specific parameters, allowing operators to optimize energy and water use as operational requirements change during the course of a job. The theme of automation continued at Hilti's busy outdoor display area with the debut of its DST 20-CA wall saw; the first in its class to have integrated most of its operating electronics into the saw head, which Hilti claims actually weighs less than units with external power boxes. Yet the configuration provides a 30% increase in power, and up to three times the starting torque for the 800mm blade. With a cordless remote control and integrated 'CutAssist' system, the saw displays cutting depth in





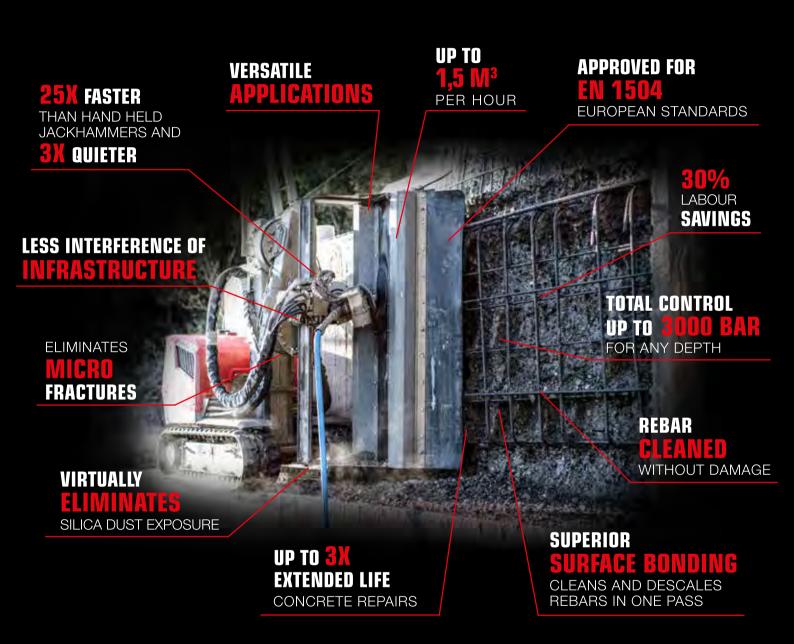






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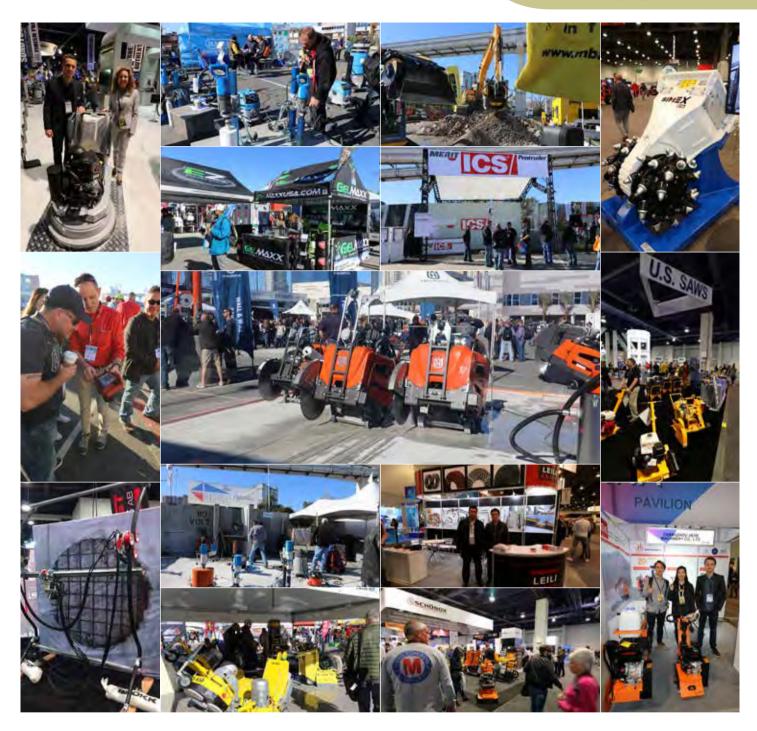




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real time and operates on a hands free basis, allowing operators to get started on setting up for the next cut, or perform other tasks.

#### Going cordless

Battery powered equipment was another common theme for World of Concrete tool introductions. Hilti's contributions included the TE-300A chipper. and TE 60 A-36 SDS max combihammer. The latter has consistently bested its corded counterpart, the TE 60, in drilling races with 3,300 impacts per minute, each with 1.1kg of energy. DeWalt introduced its new Flexvolt 60V DCH773 2 51mm brushless SDS MAX combination hammer, which achieves 19.4J, and the 20V 28.6mm DCH263 SDS Plus D-handle rotary hammer, with 3.0J of energy for high performance drilling and chipping. Bosch displayed its new Bulldog

18V S26D rotary hammer with kickback control that minimises sudden tool reactions in bit bind up situations. Depending on bit sizes, the S26D can drill up to 60 holes on a single charge, thanks to a brushless motor that maximises runtime. Bosch plans to bring cordless versions of its RH540M and RH745 cordless hammers to the North American market later in the year. "We won't come out with a new cordless version of an existing tool unless it's better than corded," said Bosch spokesperson Rachael Klein.

Saws too were going untethered, as evidenced by Husqvarna's new K355i 228.6mm battery powered power cutter, which at only 3.5kg can even be clipped to an operator's belt. A range of battery types is available to maximise productivity, depending on the number of cuts and type of material. Husqvarna's Henric Andersson says the company has stressed battery power in its

product development because of its growing importance to users. "If someone can make a good battery powered cutter, it's us, and we want to show that."

Stihl product manager Tom Techow noted that while the proliferation of battery powered saws may present competition for established products such as its TS230 cut off machine, users should carefully consider applications and power availability when comparing products. "Battery life is more of an academic question that depends on what you want to do," Techow explained, adding that customers should also consider after sale service and availability of assistance in resolving issues as they arise. Among more conventional sawing products was Stihl's TS440, introduced last May, with an extended guard adjustment designed for more easily cutting pipes and wall sections, and working in corners. When the guard is in the open position,





a gyroscopic sensor activated brake stops rotation of the cutting wheel within a fraction of a second in the event of a kickback.

US Saws displayed another sawing innovation, the SX 13550 'Dust Buggy'. Powered by a 178mm Metabo grinder, this cleans joints up to 50.8mm deep, and up to 3mm wide. Standard depth control selections lock every 6.35mm, but can be fine-tuned to compensate for blade wear. Brushless motors are likewise making greater inroads in concrete construction tools. Examples included Makita's XDT 16 18V LXT impact driver, which provides 180.78J of torque in four speed modes, and the XRH12 17.5mm rotary hammer, designed for overhead installation work. Metabo also announced that it would be overhauling its combihammer line with brushless motors. Three rotary models and two chippers will provide users with better control and reduced vibration so stated a company representative.

As battery power can take some tool types only so far, World of Concrete offered some innovative new options for energy. Makinex Construction Products debuted its portable 'Power Box', a hybrid battery powered AC generator soon to be available in models ranging from 4.4kW to 17.6kW. The Power Box produces pure sine wave power to cleanly run 120V and 240V tools all day. Recharging takes about two hours using conventional power sources, or three hours with an optional solar array attachment. "The Power Box is also equipped to handle high surge loads, which covers a lot of construction equipment," noted Makinex global product manager Jeff Durgin. "It's designed for 10,000 recharge cycles, which will last about 20 years. We warranty the batteries for 10 years."

Also on the power generation front, Doosan introduced its G25, G50 and G70 Tier 4 compliant mobile generators - its first equipped with Doosan engines. All three feature increased on board fuel capacity for runtimes in excess of 24h at any load factor. An optional 48h runtime solution is available on the G25 and G70 models. Doosan also debuted a new small air compressor line, including the C185 with 12.6h of runtime at 100% load, two hours longer than its predecessor model. The C185 offers cold starting capabilities at temperatures as low as -23°, with a Doosan DSN100 airend and a Tier 4 Final Doosan D18 engine delivering 5.23m3 of air at a rated operating pressure of 6.9bar.

#### Also on the floors

While the gradual maturation of the concrete floor grinding market may have thinned the number of manufacturers somewhat, established firms aren't taking a breather. For example, Superabrasive launched an all-new generation of electric and propane grinders called 'Lavina Elite'. Ranging from 500mm to 965mm



#### Enhance your productivity.

Hilti has set a new standard with its latest generation of DST 20-CA wall saws. The new saws provide a 30 percent increase in power compared to the previous generation, while having three time the starting torque. The DST 20-CA high frequency electric wall saw is the first saw in its power class without a power box. The integrated electronics in the saw head simplify transport of the saw and make also lengthy set-up times a thing of the past. A cordless remote control displays the cutting depth in real time. Thanks to the integrated CutAssist system the saw operates on a hands-free basis.

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There remain opportunities for smaller grinder manufacturers to carve a niche in the market, and help others in the process. Ohio based Warrior Equipment displayed its new Samson 2618 665mm four head grinder, a 420kg machine that can cover 9.2m² in three minutes. As with other Warrior products, the 2618 is assembled by wounded U.S. veterans, with a contribution from each sale benefitting the non-profit Wounded Warriors Family Support Project. Warrior representative

Steve Salmons reported that since the product line's introduction last year, Warrior has sold approximately one unit a week. "We've also made some sales at the show. People are impressed by what the grinder does, and like the idea of helping wounded veterans in the process."

There were the larger machines that captured the imagination of World of Concrete visitors. These included Gehl's RT105 track loader, which has an operating capacity of 419.5kg, and comes complete with the company's 'IdealTrax' track tensioning system that operates while the engine is on, eliminating the chance of over tensioning, thereby extending the life of the tracks by up to 15%. Case showed its new 55 TV450 compact track loader, a vertical lift machine with a rated operating capacity of 2,041kg at 50% tipping load, and 40,870N of breakout force. Wacker Neuson launched its Series II large frame skid steer and compact track loaders, all powered by 55.4k diesel engines and auxiliary hydraulic flow of 83.6l/min.

The need for better oversight over elements of a concrete contractor's equipment inventory has sparked interest in fleet management services. Provided by manufacturers and third party providers alike, these services provide users with a wealth of data on everything from where a particular tool is located, to how long it's been used and if it's due for maintenance.

Husqvarna became the latest company to join that market, announcing its 'Fleet Services' as part of a larger after market and connectivity initiative. "Uptime is critical, so it's critical for contractors and rental companies to become more proactive about preventive maintenance," says an Husqvarna representative, adding that Fleet Services can be utilised for all brands of equipment, not just Husqvarna's. "We understand the information needs of various equipment categories, because we build products for all of them." As with many other types of technologies, there's often an age gap of sorts with fleet management systems. "Younger people may 'get it' more than, say, a contractor who's been in the business for several decades," he says, adding that age and habit aren't always insurmountable barriers. "They may not initially feel that they need it, but when they realise they do need it, they want it."

models, this features redesigned frames for improved manoeuvrability and faster tool changes. The range also comes with dust proof grinding heads that protect internal components from dust and moisture, and integrated weights for adjusting grinding pressure. A new fine misting system suppresses dust particles from 0.1 to 1000microns, while the vacuum hose connection has been relocated closer to the dust source, and utilises a metal camlock attachment. Superabrasive's Monika Angelova noted that the improvements have been development for some time. "It's more efficient to introduce them as a complete product line, rather than implementing them piecemeal. Everything came together in the past year."

HTC, now part of Husqvarna launched a new range of smaller floor grinders and dust extractors under the concept name of START & GRIND. Simple, robust, and easy-to-operate, these entry-level machines are especially suitable for floor preparation and can tackle anything from edge grinding to polishing medium-sized surfaces. These machines have been engineered for use by anyone whose experience of floor grinding is limited, but who wants to get started right away. This makes them ideal rental equipment. A special focus has been put on ease of handling and transportation as well as user safety.

The manufacturer Scanmaskin launched their new World Series floorgrinder model 32 along with a new World Series Floor guide. The World Series floor guide for polished concrete combines the results of our









At bauma 2019, Case will showcase its new compact wheel loader models with electrohydraulic controls. With more than 20 sensors and 20 electrohydraulic actuators installed on the machine, this new technology will improve operator controllability, provide the option to select different operating modes and allow for combined movements. Case's Egidio Galano explains the reason for this new development: "Our customers have driven this change. We know that automated functions reduce operator fatigue and allow operators to be more productive, even for those with less experience." Visitors to the Case stand at bauma will also see several other enhancements to the Case compact wheel loader range, including a new hydraulic quick coupler for better visibility during load operations. New fork frames and buckets will provide an increased rollback angle and greater load retention at high speeds. All new features on the compact wheel loader models will be available in the second half of 2019.



#### **Bell B45E 4x4 at bauma 2019**

With the launch of the new Bell B45E 4x4 at bauma, Bell Equipment will add a new model to its range of articulated 4x4 two axle ADTs. Similar to the B60E B30E 4x4, the new truck is configured to provide a highly efficient and cost effective transport solution for niche applications in the mining and construction industry.

"Thanks to its high capacity and superior productivity, the Bell B60E can perform a supporting or primary production role in many large opencast mining and quarrying operations around the world. However, we see other target applications for the B45E 4x4," said Tristan du Pisanie, Bell Equipment's ADT marketing manager. "These include small to medium sized mining or quarrying operations with lower production tonnage, as well as larger sites with difficult underfoot conditions. Finally, there could be operations requiring selective mining in very specific areas as a top up on their main production volumes."

The Bell B45E 4x4 will enter the market in April 2019 following its launch at Bauma. Like all Bell 4x4s, the trucks will be produced in Bell Equipment's main factory in Richards Bay, South Africa, with the first machines planned for delivery early this summer.



#### **NEW CAT ENGINE**

The new Cat C13B leverages a proven, reliable core engine with over 109M off highway field hours. Combined with design improvements to create customer value, this enables OEMs to downsize their engine platforms, lower installation costs and maximise uptime. The 12.5l engine features a patented non-EGR after treatment system to meet EU Stage V and U.S. EPA Tier 4 final emission standards, and is available in multiple power ratings from 340kW to 430kW with peak torque reaching 2634Nm. The new engine offers peak power across a wide speed range enabling OEMs to optimise machine performance based on their application needs. "With a proven, reliable core engine and our extensive experience across all industrial sectors, the C13B represents a continuation of our commitment to develop engines that deliver improved performance, simplify installation and reduce operating costs,' says Jeff Moore, product director, research and development for 7.2l to 18l engines.



LaBounty, a brand of Stanley Infrastructure, has recently launched a new generation of mobile scrap shears. These feature a robust upgrade to the piercing tip, an advanced telematics platform, providing 10% more cutting force and come with a three year warranty. The new shear tip increases productivity and uptime by maximising the utility of wear parts by making it indexable, and increases protection thanks to a fully enclosed, double sided design. This added protection will dramatically decrease routine maintenance, build up and hard surfacing.

The next generation of shear will also feature Stanley Infrastructure's advanced telematics, InSite™. With the addition of InSite, operational efficiency and uptime of attachments can now be tracked and monitored at the attachment level. The new InSite utilisation tracker will help LaBounty mobile shear customers better understand how their equipment is being used by tracking idling, cutting, sorting and moving times. In addition to utilisation tracking, InSite delivers real time shear data to mobile devices to help customers monitor attachment hours, cycles, location and health.

A new MSD platform now features a 10% increased cutting force at the jaw apex. In addition to the machine uptime savings, advanced monitoring, and increased cutting force, most LaBounty mobile shears will receive a three year warranty and protection plan as standard. The end result of extensive customer research the recently introduced upgrades have been designed to help increase uptime and drive higher productivity. "At LaBounty, we've been very focused on decreasing the routine maintenance of mobile shears and leveraging technology to increase uptime," says Michael Moriarty, group product manager at Stanley Infrastructure.



From its new location at stand FN 817, Case will focus on heritage and innovation at bauma 2019. This reflects Case's approach to providing solutions for customers' specific requirements, with visitors being able to experience an application based layout at the stand. Quarrying, recycling, urban construction and road building will each have a dedicated area, with Case showcasing a total of 15 machines and sister brand Iveco displaying four vehicles. The vehicles will combine to provide a celebration of the CNH industrial brand – past, present and future. All machines displayed on the stand will be equipped with an array of certified attachments. In addition, three islands located near to each equipment application section will give further examples of how

Case's attachment solutions can adapt to deal with nearly all customer needs.

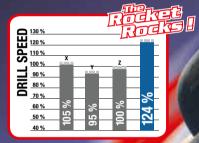
In a true reflection of one of its key themes for bauma 2019, Case is also set to debut many operator focused advancements, including the reveal of the patented combined steering functionality on the Case 856C AWD grader. This unique development provides the template for the next generation of Case graders.

Continuing its theme of enhanced operator experience, Case will also unveil an electrohydraulic (EH) control system for its 321F compact wheel loader. The new hydraulic quick coupler will improve visibility, while a new frame for the forks increases the rollback angle, allowing for safer handling of loads.

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The last 12 months have seen many new interesting handheld tools from a wide variety of companies being launched. Here are some of the most prominent developments now entering the market.

#### **Husqvarna Construction**

The Swedish company has released the K 535i, which is the latest addition to Husqvarna's battery powered range. The K 535i battery powered cutter utilises many of the same features as its fuel and electric powered compatriots, while adding benefits such as low vibrations, low weight and user friendly ergonomics to the mix. It's almost maintenance free and offers a low cost of ownership. The power to weight ratio of the K 535i especially makes it a useful addition to any landscape or hardscape contractor's equipment range and as it doesn't depend on power from the grid, it can be used whenever and wherever it's needed. The slim design and weight (3.5kg) make the K 535i easy to lift, control and maneuvere, while the centred placement of the blade provides increased stability and control when compared to conventional angle grinders. The K 535i can be used for both wet and dry cutting, and allows for adding accessories to help facilitate dry cutting. The handles are specially developed to be comfortable, and increases control for extra safety while cutting.

www.husqvarnacp.com

#### **AGP Powertools**

Taiwan-based manufacturer AGP has launched a new 330mm ring R13 ring saw, which has a 3200W electric motor and a cutting depth of 220mm. The 3200W universal motor comes with electronic overload and thermal protection, and has a unique, single stage blade tensioning system that is according to AGP faster, easier and more accurate than traditional systems. Furthermore the R13 has a high stability guide roll design which keeps the sawing ring stable and central when the cut begins. An LED indicator shows the load conditions, with any change being able to be performed quickly, not requiring any disassembly of the cover.

As of 1 January, 2019 AGP has established a Germany subsidiary, AGP Germany GmbH, located in Bochum. AGP Germany GmbH specifically manufactures equipment for the diamond tool industry, with a comprehensive range of core drilling machines, diamond saws, ring saws, chain saws, grinding machines, core drilling stands and grinders, with other developments to follow. The new subsidiary with a staff of 20 is headed by managing director Stefan Klebowski, who has more







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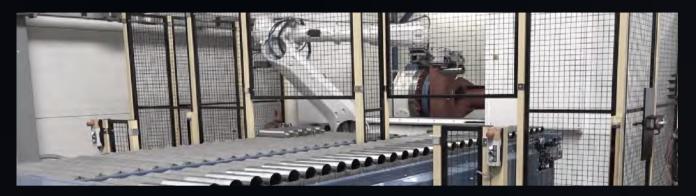


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than 25 years of experience in the industry. The German based operation will also service the requirements of neighbouring countries.

New and existing AGP products will be exhibited at hall EWE 06 at bauma 2019.

www.agp-powertools.com



#### **DeWalt**

DeWalt has introduced a new power cutter, DCS690, with a new 54V battery. It is easy to use, of low weight, and designed to easily and quickly cut through many demanding materials, such as stone, concrete, asphalt, metal and steel. Maintenance requirements are minimised as there is no need to mix fuel, and there is no filter or spark plug that needs to be cleaned. With a simple push button start, and with the help of a built in

overload indicator, the user can easily adjust the cutting speed and cutting power during cuts, which offers both increased safety and fewer abruptions. The machine is well protected against dust and water, and has a dust control system which feeds water at both sides of the blade to effectively protect against dust while working in concrete and stone. The DCS690 has a brushless motor and a speed of up to 6600rpm and a cutting depth of 83mm.



#### Ryobi

The new Ryobi 18V brushless reciprocating R18RS7 saw is ideal for demolition work with 40% more power and longer runtime than its other 18V reciprocating saws. It has a speed of 3200bpm and a length of stroke of 30mm. The electronics communicates with all Ryobi 18V lithium batteries, and when in use, the motor and the battery identify which effect is necessary. An anti-vibe handle helps absorb any vibratic

the reciprocating saw also has a safety switch to prevent unintentional start as well as a tool free blade shaft, built in LED light and blade choice. Together with Ryobi's One+ 5.0 Ah lithium battery, this reciprocating saw reaches up to 260 cuts of beams at 45mm x 90mm.

#### www.ryobi.com

#### Otto Baier

Baier has recently added to both its dry and wet dry coring ranges, with tools able to process all types of stone. Fitted with a vacuum cleaner, unique soft impact system and titanium core bit, the Baier dry coring machines can easily cut through concrete with rebar, granite and so forth. Baier supplies its BDB 825 with ø160mm diameter, and since April 2018, the two gear BDB 829





### **PDi** special feature

with a maximum diameter of ø250mm. In addition to its dry coring offering, Baier has a wide range of wet coring machines, starting at ø6mm up to ø550mm, all with 230V.

#### www.baier-tools.com

#### Hilti

Liechtenstein based Hilti has introduced its latest generation of electric cutters, including the DCH 300-X, which benefits from wet cutting capabilities and accelerated cutting speed. The largest handheld electric cutters from Hilti can cut through 120mm of concrete, masonry walls or flooring, using a 305mm blade. Hence the DCH 300-X's cutting depth is ideal for cutting or widening openings in all the most common concrete and masonry thicknesses. When it comes to cutting rebar, Hilti offers Equidist diamond blades that are subject to a precise manufacturing process where each diamond is arranged individually into a grid on the cutting surface. Due to this technology, the cutting time is reduced by 30%. The DCH 300-X includes a hose connector and dust hood with depth gauge straight out of the box, enabling users to start work straight away.

Hilti has also released the new DSH 600-X gas saw equipped with diamond tipped blades. Easy start technology eliminates the manual choke for more first pull starts, and reduces the risk of flooding. It can be used for cutting through materials such as concrete, masonry and steel, and also has the versatility, for example, to cut kerb stones and paving slabs to size. The DSH 600-X with top

handle weighs 9.5kg, has a 60cc engine and is equipped with a 300mm blade that achieves a maximum cutting depth of 120mm. An optional DSH-P water pump accessory provides independence from water supplies during wet cutting. The DSH 600-X also comes with a cyclone air filtration system which uses centrifugal force to remove dust and debris from the engine air intake.

www.hilti.com

#### Solga Diamant

As an addition to the theme of handheld machines, Solga Diamant has developed a new line of dry-cutting diamond blades for handheld thermic machines. The blades do not require water supply and are developed for handheld jobs where wet cutting might not be a viable option.

www.solgadiamant.com









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### Liebherr at bauma 2019: 'Together. Now & Tomorrow'

Visitors to bauma 2019 can look forward to seeing many new developments and practical innovations at Liebherr's 14,000 m<sup>2</sup> outdoor stand (809-813), and on its indoor stands located at hall A4, number 326, and hall B5, stand 439.

At bauma 2019, Liebherr will present its latest product developments and innovations from its ranges of construction, material handling and mining equipment as well as components. The group is confident that these innovations, along with its improved sales and service network, will lead to further growth, which is reflected in the current demand for its products and services. With its message, 'Together. Now & Tomorrow', Liebherr will give attendees a chance to learn more about its products, innovations and trends in the construction machinery industry. In addition, all the stands will feature many different activities to bring the, 'Together. Now & Tomorrow', message to life.

#### An overview of Liebherr's bauma stands

Construction on Liebherr's outdoor stand at bauma Munich began a full half year before the opening of the world's biggest trade fair for construction, material handling and mining machines, vehicles and equipment. With over 14,000 m² of space, the open air terrain stand (809-813) will provide space for more than 60 exhibits. Among the many products on display will be new innovations and developments in the product categories of tower cranes, mobile and crawler cranes, earthmoving, material handling, deep foundation, concrete technologies and mining equipment.

Liebherr will also present its latest components in hall A4 (stand 326) on a showroom floor of nearly 450 m². Here, the focus will be on condition monitoring and system solutions. In hall B5 (stand 439), visitors can learn more about the latest innovations from Liebherr's extensive attachment tools program. Visitors can also find out more about internships and entry level positions with Liebherr at the Career Point on the company's outdoor stand, as well as in the ICM Foyer (stand 308). Here, Liebherr will be one of 16 top companies taking part in the 'Think big!' event for schoolchildren.

## Technological highlights of today, innovations of tomorrow

For Liebherr, gathering feedback from customers, machine operators and industry insiders is crucial to facing the future together, making bauma a perfect platform. One of the key topics for the future is digitisation, which is now impacting all product areas in terms of assistance

systems or service, and training options. At bauma 2019, Liebherr will also debut a new series of tower cranes with fibre ropes which will be available for sale from April. This new, high strength fibre rope is around 20%of the weight of conventional steel rope, but has four times the lifespan, and is much easier to use. Liebherr will also unveil five new mobile cranes at the trade fair, which build on proven technologies to provide better performance, efficiency and flexibility. The construction machine manufacturer will also present a new crawler crane with a load capacity of 300t which features innovative assistance systems that increase safety and make it easier to handle. Starting in January and throughout 2019, Liebherr will also be introducing its new generation of earthmoving crawler excavators, with during the first phase seven new models being released in the 22t to 45t range. The new, eighth generation crawler excavators provide more power, more productivity, increased safety and greater comfort for the operator.

Also new is the XPower large wheel loader range, with a total package containing many smart assistance systems. Features also include the new rear bystander detection, and a built in sensor powered tyre monitoring system. With these and other assistance systems, Liebherr offers a total solutions package to optimise safety and comfort during everyday wheel loader operation. All these systems have been developed by the Liebherr Group so they can be fully integrated into the control systems of the machinery.

For the construction industry, the completely redeveloped 42 M5 XXT automatic concrete pump for the mid-range class will be shown, with many technical parts coming from Liebherr's own component production. One major product is the new Liebherr Powerbloc drive unit for the pump system. All hydraulic switching and metering elements are fully integrated which eliminates the need for many hydraulic lines and other parts. In the mining area, visitors will have a chance to experience the power of Ultra-class mining trucks and excavators fitted with a single dashboard making fleet management easier than ever.

At bauma, Liebherr Components will also reveal the demo version of an 'app' which shows the extensive functionality of all Liebherr's condition monitoring components, from diesel engines to energy storage, hydraulics, transmissions and slewing bearings. In the future, this will enable machine manufacturers to inform fleet managers, service personnel and machine operators about the condition of their components. The Components division will also be presenting a full range of new products.



### GSSI shows PaveScan RDM asphalt density tool

GSSI, the manufacturer of ground penetrating radar (GPR) equipment, has announced that its PaveScan RDM asphalt density assessment tool was featured at the Transportation Research Board (TRB) 98th annual meeting. This was held from 13-17 January 2019 at the Walter E. Washington Convention Center in Washington, with demonstrations being held of the PaveScan RDM at the company's booth in order to show its accurate real time measurements of pavement life and quality.

GSSI's PaveScan RDM system, initially unveiled at the 2016 TRB meeting, is now a valuable addition to the toolbox of solutions for uncovering problems that occur during the paving process, including poor uniformity and significant variations in density. By avoiding these problems, PaveScan RDM helps avoid such premature failures as road ravelling, cracking, and deterioration along joints.

PaveScan RDM automatically measures the dielectric value to identify anomalies in real time. In addition, the dielectric values can be used to correlate percent voids and density in new pavement. The innovative technology enables users to obtain critical density data for quality assurance/quality control of new pavements. Unlike other options, like nuclear density gauges or radioactive alternatives, PaveScan RDM does not result in any site hazards or require closing off work areas.

Seamlessly integrating with GPS systems, PaveScan RDM features a flexible, modular design that facilitates easy and efficient operation and data collection. It is available as a small, portable single sensor cart based system, or a three sensor configuration using an extended cart or vehicle configuration. The entire system is composed or a cart or vehicle mount, one to three sensors, a customised Panasonic G1 ToughBook, a concentrator box and a variety of system accessories

# Some hardcore stuff



#### WEKA expands dry drill portfolio

German based trendsetter in drill motors. WEKA, has expanded its dry coring range with the addition of the new two speed DKS15 model for up to 200mm applications featuring a 'soft impact' function. The function, which can be switched on and off, permits high performance dry drilling in reinforced concrete and other hard materials. An easy to use dust extraction system and very compact size make the new drill motor ergonomic and operator friendly. With rated power of 2,000W, the machine

can be used in both hand held and rig based modes. The two speed gearbox has an oil bath lubrication system for high efficiency and durability. The DKS15 is available with D and P handle.

#### www.weka-elektrowerkzeuge.de

#### Hycon: hands on solutions for multiple industries

Based in Støvring, Denmark, Hycon specialises in hand held demolition and cutting tools. Thanks to the broad applicability of its machines, the Danish company enjoys a worldwide customer base, which includes specialist

The demolition and concrete sawing industries go hand in hand, yet in some ways they couldn't be more different.

This manifests, for example, in their approach to preparing for a big exhibition. If manufacturers of excavators and attachments begin their campaigns well ahead of the show, sending out press releases on new products and staging various media events, players in the sawing and drilling business tend to be more reticent. In part, it explains a somewhat modest amount of entries submitted for this report on the latest concrete coring systems. Undoubtedly, we will see a lot more innovations at bauma in just a month's time. Andrei Bushmarin reports.



cutting and demolition contractors, utility companies, municipalities, railway operators, rescue teams and military engineering units. Hycon's hand held drills boast a number of advantages over conventional rig based systems. First and foremost, purchasing and operating costs are lower with Hycon machines as there is no rig to set up. Compact dimensions and low weight allow for versatility in application. The machine drills up to 350mm in different materials thanks to high torque and the fast responding ASCO safety system. The inbuilt ASCO (automatic safety cut off) system automatically shuts down the machine if the core bit jams. The standard 60mm round front end makes it easy to mount the drill onto most existing rig types. All parts are bathed in oil to reduce maintenance and increase service life. With a 'smooth start' function and variable rotary speed, the drill is a breeze to operate. Thanks to the airtight housing, it can also be used underwater.

#### www.hycon.dk

#### Tyrolit features new wet drilling system

The Austrian-Swiss heavyweight Tyrolit-Hydrostress has launched its new DRS250 system, which combines operational simplicity with a large drill diameter range. The powerful 2.5kW drill motor and stand are designed to function as a single unit. The two speed oil bath gearbox ensures efficient lubrication in every working position as well as an optimal torque to speed ratio. Designed for up to 250mm wet coring applications, the new system boasts a compact, lightweight and user friendly construction. The mechanical overload clutch and integrated PRCD safety switch ensure operational safety. An optional vacuum plate offers extra flexibility when installing the drill rig.

#### www.tyrolit.com





### Dymatec adds auto feed system to the programme

UK based Dymatec is now offering to the market a new auto feed drilling system allowing users to significantly increase output on the holes drilled. The DAF - 400 auto feed drilling system features automatic sensing technology, which reduces the speed of the drill bit when it hits steel reinforcement and increases it again once the steel is cut. It also senses when the core bit has drilled through the material and stops automatically. Designed to fit a variety of drill stand types and suitable to run with any drill motor, the DAF - 400 performs effectively on hole diameters ranging from 50mm up to 300mm.

#### www.dymatecuk.com

#### Hilti's DD 30-W drills fast clean and quietly

Designed for heavy duty drilling, Hilti's new coring system, DD 30-W, utilises patented 'TopSpin' technology, which combines 8700rpm with a slightly eccentric rotation of the core bit. This solution allows for transferring more pressure to the diamond ring, which results in faster drilling. According to the manufacturer, the DD 30-W permits users to set adhesive anchors in concrete with rebar five times quicker and quieter than before. Thanks to low noise levels, the new drill is particularly suitable for jobs in inhabited facilities such as hospitals, commercial and residential buildings. When used in combination with the Hilti water management system DD-WMS 100, the DD 30-W considerably simplifies water, slurry and dust treatment. Water is recycled up to seven times, providing water autonomy for up to a day. Slurry is captured in a filter bag to make the disposal process easy.

www.hilti.com





### **PD**i site report



According to the magazine New Homes Review, 40% of new build homes in the UK are not completed by the agreed deadline. While some delays may be unavoidable, contractors can work together to stick more closely to deadlines. Connie Johnson, vice president of marketing of National Flooring Equipment, explains how surface preparation contractors can help a new build project run smoothly.

As the population increases, we need more houses and commercial and industrial spaces to make sure everyone has the amenities they need. For example, research by Heriot Watt University says that the UK must build 340,000 new homes each year until 2031 to meet demand, with the construction industry now under pressure to rapidly deliver high quality housing over the next few years. Working on a new build, whether it is a residential, commercial or industrial space, requires different considerations than a renovation meaning that surface preparation contractors should work with other contractors on site to make sure a new build is successful.

A small new build project might be organised by the new homeowner who brings in certain specialists, whereas a large project might be run by a general contractor who brings in other companies to help complete the work. No matter how big the project is, communication is key to make sure it is a success. For example, contractors should work together to organise a schedule so that they can carry out their part of the job at the correct point to a high standard and to the deadline.

Surface preparation should always happen at the end of a project to avoid anything compromising the quality of the final floor covering. If surface preparation contractors complete their work before the space is painted, or the electrics are installed, there is a chance that paint will fall or electricians will have to undo the work that has already been done by the surface preparation contractor in order to lay wires. The contractor has to work for longer to fix the floor, slowing down the project and costs more for the client.

The best way to ensure a housing project is completed

to the desired finish is to make everyone involved aware of what to expect. Customers can ask for a certain look or finish of the floor, but it does not mean that the desired finish can be delivered. 'Just because you say something it does not mean that somebody hears the same thing,' is a common phrase in construction. Contractors should make it clear what they will try and do, and the potential outcomes. Contractors should also have several back up plans that they clearly communicate to the client to make sure the work will still be completed to the client's expectations.

Unlike a renovation, surface preparation contractors work with freshly poured concrete. This means that they do not have to counteract any mistakes made by contractors who have worked there previously.

Fresh concrete gives the project manager, the client and the surface preparation contractor the freedom to work with a wider variety of materials. For example, in a larger space where the client wants polished concrete, contractors will not have to worry about hiding any old stains or cracks.

Before starting a job, surface preparation contractors should understand the desired function of the space as well as the traffic that will be around it. For example, a residential space will only have a small amount of foot traffic in comparison to a warehouse that will have many people walking around, as well as large equipment such as trolleys or forklifts. Once the work is completed, contractors should put together a maintenance schedule because all floor coverings require maintenance for a longer lifespan. If the customer understands what maintenance needs to take place and when, they will be able to keep the high quality of the floor for longer.

Working past deadlines can disappoint the client, who may complain to others and negatively impact on the contractor's reputation. Thus contractors should encourage communication, manage expectations and take the time to complete high quality work. If they can keep these considerations in mind, construction companies can meet deadlines while maintaining a high standard of work.



A new 22t Doosan DX225LC-5 crawler excavator has been converted into an 'all-terrain' machine for contracts being carried out in the Wadden Sea, by German company, Sven Jacobs Tief-Garten-und Landschaftsbau. The conversion of the excavator, supplied by local Doosan dealer, Atlas Hamburg GmbH, was completed by Olko-Maschinentechnik GmbH from Olfen (NRW).

The main work area for the new excavator is the 11.3km long Hindenburgdamm embankment, which connects the island of Sylt with the mainland of Germany, with around 8.1km of the embankment running through the Wadden Sea. To prevent the standard Doosan 22t excavator from sinking into the water, a particularly low ground pressure is required. For this purpose, Jens Mewes, from Atlas Hamburg, who has been working with the Jacobs company for four years, contacted Olko-Maschinentechnik to carry out the conversion needed. Olko has remounted the superstructure of the DX225LC-5 on an all-terrain undercarriage to ensure full manoeuvrability of the excavator.

Jacobs has been using Doosan excavators since 2014, and the new machine is the fifth Doosan crawler excavator purchased. The DX225LC-5 features the same new distinctive engine design that characterizes all the excavators in the latest Doosan LC-5 generation, and is powered by the proven water cooled Doosan 6cylinder DL06P turbo charged diesel engine that delivers 124kW at 1800rpm.

The Olko undercarriage itself has been designed for difficult applications in adverse conditions and on challenging surfaces, such as those found in, for example, wetlands, as well as performing environmentally friendly work in sensitive environments. It also makes it possible to carry out work on lakes, rivers and coastal areas. The type U/1800 undercarriage used on the DX225LC-5 has a length of 10.8m, width of 6.2m and a height of 2.35m. The undercarriage alone weighs around 27t and produces a buoyancy of 580 kN. It achieves a load capacity of 18t and a maximum speed of 4 km/h.

In addition to the conversion of the chassis, a number of other modifications were made by Olko. This included fitting the crawler excavator with a 9m boom and a dipper stick 6m in length. The extended reach makes it possible to work underwater without any problems. In addition, a supplementary fuel tank and a shelf for an anchor were installed. In order to comply with environmental regulations, the machine was converted to biodegradable Panolin hydraulic oil. Olko ensured that the finished machine is certified with the CE mark and accompanied by the documentation required by the EU Machinery Directive.

Supplying the standard excavator to be converted by Olko was Atlas Hamburg GmbH, which is part of the Wehl Group, and since 2012, it has been the Doosan dealer for the areas of Hamburg, Northern Lower Saxony and Schleswig-Holstein. Olko-Maschinentechnik GmbH itself has been one of the driving forces in the field of shaft construction and conveying technology, concentrating on all-terrain machines as a niche segment of the construction machinery market.



A Kemroc EK 150\_800 chain cutter mounted on a 50t excavator was used to renovate and extend a ski area in Styria, Austria. The work required a 700m trench to be excavated in hard limestone at an altitude of 1,700m to supply water to new snow cannons. Thanks to the productivity and low transport costs for excavated and fill material resulting from the use of a grinding attachment, the contracting company, Karl Pitzer GmbH, succeeded in completing this ambitious project in time and within budget.

The Loser Ski Resort is located on the 1,803m high Loser Mountain near Altaussee in Styria, Austria. To secure the future of winter sports in the area, the locale has invested €4.5M making improvements, renovating some of the existing ski slopes, building new ski slopes, and extending the range of the artificial snow systems with the installation of ten new snow cannons. As part of the renovations, the summer of 2018 saw contractor Karl Pitzer GmbH start work with a Kemroc chain cutter excavating a 500m pipeline trench to connect new snow cannons to a 70,000m³ storage reservoir. The contractor is well-known as a civil engineering company, and is based in Schladming in Styria, Austria. The family business specialises in technically difficult projects such as the installation of artificial snow systems.

At the start of the project, Pitzner engineers excavated the pipeline trenches containing a mixture of solid limestone and hard rock boulders. In 2017, at the start of the two year project, the trench was being excavated using drill and blast and hydraulic excavator with a hammer attachment. At this time, Pitzer had its first contact with Wimmer Felstechnik, Kemroc's Austrian agent, followed up by a visit to the MAWEV construction show and to the Kemroc stand. At the show, Pitzner had the opportunity to see the chain cutter at first hand, and discuss excavating using the attachment. After further discussions, it was decided to try the Kemroc EK 150\_800 chain cutter on one of Pitzer's 50t excavators at the Loser Ski Resort project.

Usually, trenching in solid rock containing hard rock boulders is still carried out using a combination of the traditional methods of drill and blast and hydraulic excavator with hammer attachment. This excavation method is slow, very hard on the excavator and operator, and creates a trench which is always larger than required with a large volume of large particle size excavated material. In comparison, the EK (Erkator) range of chain cutters from Kemroc can sometimes be quicker, more economical and, in ideal conditions, easier on the excavator and less tiring for the operator. The chain cutter has a patented chain fitted with tungsten carbide round attack picks, and excavates the material located between the two external cutter drums. The attachment excavates a trench with vertical, parallel sides to the exact dimensions required as there is no need to excavate more material than necessary, with the material excavated also having a grain size small enough for use as back fill, this providing savings in the cost of transport and back fill material.

Pitzer experienced all these advantages at the Loser Ski Resort. Out of a total length of 700m, 500m of the 1.5m deep trench was excavated in a period of about four weeks in the summer of 2018. While excavating with a hydraulic breaker, the operator was forced to start with a much greater width at the top of the trench in order to achieve the required width of 800mm at the bottom.

"Importantly, when excavating in solid rock the chain cutter gave us two major benefits: firstly, the trench

profile was much smaller and secondly, the material taken out of the trench was re-usable," so explained Pitzer's excavator operator. Company director Karl Pitzer confirmed this, "Compared to using a hydraulic hammer and blasting, our experience has shown that the use of a chain cutter in solid rock has been ideal: we are keeping the size of the trench to a minimum while excavating material that can be put straight back into the trench. In situations such as these, trenching at altitude in the mountains, transportation of large volumes of material represents a very important cost factor and they must be kept to a minimum."





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Demolition job sites are often bound by strict budgets, time schedules and regulation enforcement. However, ground penetrating radar (GPR) scanning can be a very important preparation and control measure to avoid unexpected damage and delays. PDi takes a look at a new and exciting development from Japan.

The main advantage derived from GPR technology and equipment is fast and efficient location of, for example, steel reinforcement, rebar, cables, electric conduits, embedded plumbing and water pipes. This enables the marking of a suitable cutting or drilling location in a wall or floor prior to performing cutting and coring work, thereby facilitating the use of the right demolition tool. Today a number of manufacturers of GPR equipment exist around the world that develop and sell machines that are suitable for scanning in demolition applications, with the main players in this growing business being MALA GSSI, Hilti, JRC (Japan Radio Co), Proceq, Geotech and Sensors & Software.

#### New 'Handy Search' from Japan

One of the above manufacturers, JRC, has recently launched the new 'Handy Search' NJJ-200K, which is said to be the first GPR equipment in the world to adopt a smartphone as the controller. This system works by displaying images of the cross section of a concrete structure in a direction that intersects the search target perpendicularly, with the cross section of any rebar being displayed as an angular image.

'Handy Search' is equipped with four detection modes including a 'normal' mode for easier rebar detection. This has a 'navi light' feature for exact detection even in dark areas, a new LED position indicator and rebar detection assist function making rebar detection simpler. The other detection modes are 'handle less', which makes detection in narrow areas possible and by removing the handle, detection previously not possible due to height limitation can now be undertaken. The 'extension' mode reduces strain and workload during scanning, with an extension bar making scanning easier in higher, hard to reach areas. It also allows easier scanning on the ground by eliminating the need to squat.

Finally, 'Handy Search' comes with a 'smartphone' mode. This is for easy and quick sharing of detection data, immediately via e-mail, or by cloud if the phone is used with a subscription service.





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# Hitachi enhances durability and safety of ZW180-6 and ZW220-6 wheel loaders

Hitachi has introduced a waste handling package for its ZW180-6 and ZW220-6 wheel loaders. This comprises of a range of additional features that provide extra protection for the operator and key components, enhancing the safety and durability of the machine, and reducing unscheduled downtime and maintenance costs. In addition to waste handling, the new package is said to be advantageous in demolition and forestry applications.

For added protection from falling debris, the medium wheel loaders are fitted with durable guards for headlights and taillights. Seal guards for the wheels prevent material from wrapping around the axles, whilst steel spiral hose guards protect the hydraulic hoses of the boom and lift arm cylinder. A lift arm cylinder protector prevents damage of the lift arm cylinders, hoses and tubes when material is trapped between the cylinders and the front frame. An articulation area guard protects critical components, such as the transmission and parking break, from damage due to fallen debris.

To enhance the reliable performance of the machine in waste handling and dusty environments, a dust protection screen with fine mesh and automatic reversible cooling fan prevent the radiator from clogging. The waste handling package includes an engine pre cleaner to eliminate dust and dirt, which will also extends the lifetime of the air filter. For added durability and safety, owners can choose from a range of optional guards for the front windshield, bucket cylinder, the driveshaft and powertrain.

The medium wheel loaders offer high levels of performance without compromising on efficiency, thanks to low levels of fuel consumption, with both the ZW180-6 and ZW220-6 also being designed to be safe machines. They offer the high levels of visibility with a 360° panoramic view from the spacious cab and a rear view camera, and through repositioning of the muffler, air filter and wide view mirrors, the rear view visibility has also been enhanced. Low levels of noise are experienced by the operator due to improved sound insulation.

# Real time productivity data and on demand support

Stanley Infrastructure has launched what is said to be the industry's first digital platform designed to increase operational efficiency and uptime of attachments with advanced telematics data. The new InSite utilisation tracker will help LaBounty mobile shear customers better understand how their equipment is being used by tracking idling, cutting, sorting and moving times. In addition to utilisation tracking, InSite delivers real time shear data to mobile devices to help customers monitor attachment hours, cycles, location and health, with service intervals now being based on actual shear usage, not carrier hours.

Beginning in January 2019, all LaBounty mobile shears equipped with InSite has received a three year warranty and protection plan. InSite has being available through LaBounty dealers in North America, with the platform being designed to be retrofitted into most LaBounty mobile shears, and has become standard equipment on most new shears beginning in January 2019.

InSite is also bundled with ProCall, Stanley's virtual service calling platform. ProCall is an interactive virtual environment for service professionals to diagnose issues and provide expert support from anywhere in real time. Technicians can now see exactly what's happening with a shear by taking control of the mobile device

in the field, and superimposing drawing tools on top of the live video, helping to fix issues hours, or even days, faster than before. The end product of extensive global market research the new products are targeted to leverage technology to help increase uptime and drive higher productivity. "Equipment downtime can be extremely costly for our customers," says Ian Harney, director of marketing at Stanley Infrastructure. "These new technologies are so exciting because both InSite and ProCall have already demonstrated a tremendous ability to reduce downtime and increase productivity, which will be invaluable for our users."





When purchasing a machine, surface preparation contractors must often see the bigger picture to avoid challenges after construction, with choices having to be made concerning the use of either propane and battery powered ride on floor strippers.

Ride on floor strippers were initially all petrol powered, but propane became a favoured fuel due to the release of fewer carbon emissions. As technology advanced and carbon emissions became a greater concern, battery powered machines were introduced. These days, floor preparation machine suppliers sell both types of ride on floor stripper, and each has its pros and cons. Deciding which to buy comes down to priorities.

An important consideration for contractors is the duration they plan to use a floor stripper in continuous operation. When the fuel tank in a propane powered machine is empty, it can be immediately refilled, whereas battery powered machines must be recharged regularly, which takes time. Therefore, for those that need to use a machine for long periods without downtime, propane powered ride on floor strippers are most suitable.

Due to a lack of electricity supply in outdoor areas, propane powered floor strippers are also a sensible choice for contractors who work mainly on outdoor sites. In addition, compared to battery powered machines, those with combustible motors usually have greater horsepower, giving them a faster ground speed. This is beneficial for certain jobs, such as surface preparation on busy roads, where contractors might need to move a floor stripper quickly to avoid a traffic accident.

However, regulations on indoor job sites often forbid the use of propane powered machines due to the harmful emissions they release. Therefore, contractors who frequently work indoors should purchase a battery powered floor stripper, which is emission free. Battery powered floor strippers also run much more quietly than combustible motors; for this reason, they are a favourable choice for jobs in residential areas and occupied office spaces. Another advantage is that the machines weigh more than propane powered floor strippers due to the weight of the batteries. This can make them more aggressive, improving their performance.

In an ideal world, both a propane and battery powered ride on floor stripper would be acquired to cover all eventualities. But where this is not possible, a choice must be made. In terms of performance, the variability between the two types is hardly noticeable, so should not be a key factor in the decision. The most important consideration is the type of site is most often worked on. Battery powered machines are arguably more practical as they can be used in most locations, provided they are fully charged before reaching a site without electricity.



### **New Cat App**

The new Cat App delivers simplified, streamlined data directly to mobile devices, helping customers monitor machine location and health, react faster to fault codes and maximise uptime. The culmination of a targeted 'voice of customer' program, the new Cat App is optimised for contractors who need to track critical machine operating data from the field. Designed for machine owners worldwide, Cat App users can choose from 35 different languages. It is available on both iOS and Android operating systems, and can be downloaded from Apple iTunes or Google Play store. Providing a fully integrated and streamlined user experience, fleet information can be accessed or updated on the Caterpillar website or from the mobile platform.

# Komatsu innovations on show at bauma 2019

At bauma 2019, Komatsu Europe (KEISA) will showcase industry leading products and services, and new technological developments. Over 30 Komatsu machines and their attachments will be displayed on a 4,000 m<sup>2</sup> indoor stand and a 2,600 m<sup>2</sup> outdoor area, with Komatsu's construction and mining equipment being demonstrated live.

Visitors at bauma will be treated to Komatsu world premieres, which will be revealed at the fair. "The novelties that Komatsu will unveil at bauma 2019 will mark a turning point for owners and operators, and for the entire construction industry," says Naser Memic Rendon, marketing and communications manager at KEISA. "Komatsu wishes to generate a lot of interest from visitors and looks forward to this renewal of our commitment to the construction and mining markets."

Ranging from the versatile MR-5 machines up to a powerful PC4000 mining excavator, the newer dash 8 backhoe loaders, dash 11 excavators and dash 8 wheel loaders, the entire Komatsu Europe range will be represented. The recent HB215LC-3 and the heavier HB365NLC-3 hybrid excavators- both with an EU Stage IV engines - will illustrate Komatsu's unique hybrid technology and its workability, ecology and economy for customers.

Komatsu's intelligent machine control, first announced at bauma 2013, will be highlighted again at bauma 2019, both indoors an on the Komatsu demo area, with several hydraulic excavators and crawler dozers. Visitors to the Komatsu Europe stand will be able to learn about the company's high tech product support and services such as service agreements, optimal fleet recommendation, Komatsu Care, KomVision, and the Komtrax wireless monitoring system, standard on all new machines. Space will also be dedicated to Komatsu Finance and the Komatsu's used equipment programme.



Longer service life, flexibility and higher carrier utilisation, have been the essential features of Epiroc's hydraulic attachment tool designers recently. Epiroc has expanded its offering with additions increasing user productivity and maximising investment, including pulveriser jaws for combi cutters with the introduction of pulveriser jaws for the CC 3100 combi cutter being unveiled at bauma, with more models to follow during O2 2019. Fitted with Epiroc's coupling and positioning system (CAPS) which makes it easy to switch between jaw types on site to suit the work at hand, the full jaw range consists of universal (U), steel cutting (S) and

A new CC 1600 combi cutter model designed for carriers in the 13t-23t class will also be shown. A stable cutter body features two powerful hydraulic cylinders with integrated speed valves for minimum cycle times and low fuel consumption. Fully protected by piston rod guards, the cylinders deliver virtually constant closing force which remains high even when the jaws are almost closed. Two jaws moving independently eliminate displacement forces on the cutter and the carrier, ensuring controlled demolition of unstable concrete walls, regardless of which jaw attacks the material first.

The MG multi grapple range has been redesigned to make it even more robust. The MG 1000 will be displayed at bauma, with the entire range being replaced during 2019. As a new option, to allow even better customisation of the grapples, they can now be ordered with or without rotation device to enable operation of the base units in combination with tiltrotators. A new cutting wheel option is available for the ER/ERC 50-ER/ERC 3000 transverse drum cutters. As precision is key when it comes to cutting narrow trenches for cables or pipe trenches with a width of 55mm-250mm, and a depth ranging from 150mm (ER/ERC 50), up to 700mm (ER/ERC 3000) can be cut in one go.

#### The latest in smart surface and underground mining

Amongst the mining developments to be shown at bauma 2019 will include 'My Epiroc', a platform available via the web and mobile devices with new features for increasing fleet efficiency and safety. Additionally a new surface mining drill rig platform will be launched along with the 'Serpent Automatic', which is a smart, automatic solution that provides optimal air quality for a safer and healthier underground working environment. At bauma Epiroc will further show the integration between Serpent Ventilation and Mobilaris MMI, which helps to increase health and safety for operators, improving energy efficiency in an underground tunnel or mine site.

#### Grouting and spraying made easier

Unigrout Flex, a ground treatment method to seal mines and tunnels, or to improve ground properties, will be displayed at bauma. For tunnelling, the Meyco ME5 and Dosa system, will be shown alongside several new upgrades. For safe and productive mechanised pipe roofing, the Boomer E2 the hydraulic face drill rig, which eliminates manual handling of drill rods and umbrella pipes, is to be displayed. The mechanical system also ensures improved productivity, providing an enhanced overview from the service platform close to the actual work, with the pipe roofing system being designed to benefit the whole operation.

#### Leading the way to zero emissions

Leading developments in sustainability in mining through battery electric, zero emission equipment will be out in force at the German show. These have been developed for a safer and healthier underground working environment, with additions being unveiled to Epiroc's proven battery offering and zero emission underground fleet. These include the second generation in rigs for face drilling, production drilling and rock reinforcement, as well as loaders and mine trucks.

#### Other developments

The Mobilaris position based decision support system for tracking and finding equipment, vehicles, personnel and overseeing infrastructure in real-time will be featured, alongside the increased capabilities of the DM series of drills equipped with RCS lite. This new version of the rig control system (RCS) boosts the efficiency and productivity of the DM30 II, DM45, DML, DM-75 and DM-M3 models with three levels of software and hardware system.

Staying on the theme of drilling, Epiroc's new Powerbit underground drill bit range for tophammer drilling is said to use the company's hardest steel, will also be at bauma. New head and bits to be shown include the new Coprod head and bit technology, which include a complete range of Powerbit drill bits, with a more effective head with fewer parts. For drillers, this means easier handling, better hole quality, increased penetration rates, lower fuel consumption and greatly improved productivity.

A new series of down the hole hammers - COP M6, COP M7 and COP M8 - are based on an upgraded technology concept to enable miners to drill larger holes without the need for a larger rig will be also unveiled. Finally, Epiroc will launch its 'a bit smarter;' concept, which is a set of digital solutions that turn consumables into smart, connected components using customer data and the latest wireless technologies.

That's what our job's about. Designing and making the perfect hydraulic tools for any application, and then making them available to users all over the world. We also have to make sure they stay efficient over time. Whatever job you have in hand, you can bet your life we're already working on that for you.

















Bauma 2019 - April 8/14 - Munich - Open Air Area - FM 709/8

# **Changing demolition tool**

Tool changes in seconds, less machines on the worksite, higher production rates, more profit, and the right tool for the job. lower transport costs, no oil spill, improved safety with no people around the excavator when changing tools and no protected hose run. These are the major advantages when using a proper, fully hydraulic, automatic quick coupling system. Here we outline the latest developments from suppliers in this year's PDi feature on quick coupling systems for demolition excavators. Jan Hermansson reports.

The working environment for demolition excavator operators is steadily getting better and better. The cabins are being improved with more space, visibility and better protection from falling debris. Now the right quick connect system from a professional supplier means they don't even need to leave the cabin to change a hydraulic attachment. But that is not even news anymore, as there are an assortment of dedicated manufacturers who develop and manufacture fully hydraulic and automatic quick couplers systems for demolition carriers, with the leading companies being OilQuick, Steelwrist, Variolock from Lehnhoff, Likufix from Liebherr, EC-Oil from Engcon and Riedelberger. There is also a rumour that Caterpillar is working on a new full automatic system but PDi is unable confirm this. What is definitely new since about a year ago is that some other manufacturers have started to develop their own quick coupling systems, which is covered later in the text.

The quick coupling system revolutionised the working day for the operator being invented during the mid-1990s by OilQuick from Hudiksvall in northern Sweden. OilQuick, founded in 1952, is now the largest provider of fully hydraulic and automatic quick coupling systems for excavators in the world. It is a



modern engineering and sales company, specialising in automatic quick coupler systems not only for demolition excavators, but also for general excavating, wheel loaders, lift trucks, lorry cranes and material handling machines. OilQuick has experienced very strong growth during the last 15 years and since the beginning of 2000 increased turnover tenfold. Today around 80% of production is exported to Western Europe, Japan,

Australia and USA, with the OilQuick OQ range being of particular interest to the demolition industry. The OQ range contains nine different models ranging from OQ 40/24 for excavators weighing from 1t to OQ 120 for excavators up to 120t. This is currently the widest selection on the market offering attachment changes in about 10 seconds without having the operator leaving the excavator cabin.

Besides the Scandinavian countries, OilQuick has gained a strong foothold in Germany, forging close relationships with several suppliers of demolition excavators. OilQuick also has several subsidiaries around the world, including a US subsidiary. Sales of quick coupling systems within the demolition industry are rapidly increasing in the US, and the company will in March exhibit at the US Demolition Association convention in Colorado. OilQuick also exhibited at the recent DEMCON show in Stockholm. Parallel to the show, the Swedish Demolition Awards 2018 took place, with Åke Sonerud, part owner and chairman of OilQuick, being honoured with the Swedish Demolition Awards Honorary Prize. The company is of course exhibiting at bauma with new innovations being expected at the show. www.oilquick.com

#### Steelwrist

For a number of years the OilQuick system was one of very few that was fully hydraulic and optimised for





# in a twinkling of an eye



demolition contractors, however, other similar systems have been released. Also from Sweden is the company Steelwrist, which released in 2017 a similar fully hydraulic and automatic quick coupling system called the SQ Auto Connection quick coupler system. When the system went in to production during the autumn of

2017, Steelwrist also released new coupling technology called Qplus, with initially two models of automatic quick coupling systems being launched: SQ60-5 for excavators between 12t-20t and SQ70 for excavators between 18t-33t. Scandinavia warmly received the system from Steelwrist with this soon replicated in other parts of Europe. During 2018 Steelwrist re-



Stefan Stockhaus, Steelwrist.

fined its system and launched a third model, the SQ80 for excavators between 25t and 43t.

The Steelwrist SQ Auto Connection couplers follow the internationally growing symmetrical standard, a wedge locked system according to the ISO13031:2016. In addition, and in order to comply with ISO13031:2016, Steelwrist's SQ couplers and SQ tiltrotators also include patented 'Front Pin Lock' technology which ensures increased safety by preventing the operator dropping work tools by mistake.

During the recent bauma media dialogue, PDi discussed developments with Steelwrist's part owner

and president, Stefan Stockhaus, who mentioned that during bauma Steelwrist would release two new models, SQ65 and SQ70/55. "Customers have highly appreciated Steelwrist's move into the fully automatic quick coupler market with a very competitive product offer which is compatible to the market standard. Since the launch of our SQ60, SQ70 and SQ80, our customers in Central Europe have been desperately waiting for the SQ65 and SQ70/55 from Steelwrist. Now we are very happy to launch those new quick couplers at bauma 2019," says Stefan. The new SQ65 and SQ70/55 will be available for ordering right after bauma and deliveries to customers will start from July 2019 onwards. Another development is a new electrical connector for connecting SQ couplers and work tools. The V14 is a robust fourteen pole connector that can be retrofitted in existing SQ and OQ type couplers and work tools. Stockhaus also mentioned that additional models for heavier demolition carriers are part of it future plans.

www.steelwrist.com

## **PDi** special feature



#### Lehnhoff

German attachment specialist Lehnhoff will at bauma present various new products including the symmetrical quick coupler for excavators from 22t-32t. Also new is a hydraulic HS Plus quick coupler system for mini excavators from 1t-6t, to which Lehnhoff added a safety addition last year. On the proven HS models, the extension of the locking bolt is signalled to the operator by a display pin on the quick coupler that is clearly visible from the cab. With the HS Plus quick coupler, a release button ensures that the bolt is in the end position. The button is mechanically actuated by the fully engaged attachment, and only then releases the spring force hydraulically, which leads to the extension of the locking bolt on the mini HS coupler. Consequently, the user can be absolutely sure that the attachment and the quick coupler are safely and securely connected.

Lehnhoff is also launching its latest mechanical quick coupler, MS03-02, which is designed for 1.5t-6t excavators. The company has further developed its series of symmetrical quick couplers by launching the SQ70 fully hydraulic and automatic quick couplers for excavators from 22t-32t. The Lehnhoff SQ quick couplers are all fully compliant with the industrial S-standard, albeit the attachment specialist tends to focus on the fully hydraulic version.

#### www.lehnhoff.com

#### Mecalac

The manufacturer Mecalac has announced that it will launch a new automatic connection for the hydraulic lines between the machine and hydraulic tool called 'Connect Energy Link'. With this, the company is adding more to the performance and versatility of its excavators with an ingenious system that provides automatic connection of the machine's hydraulic lines and electric cables to the hydraulic attachment. In addition to the improved productivity that naturally results from cutting the amount of time normally spent changing attachments, another consequence is improved safety and comfort for operators.

An intuitive recognition electrically and hydraulically adapts the machine to the attachment taking place thanks to RFID (radio frequency identification) technology. This patented Mecalac innovation combines a sensor fitted to the end of the Mecalac excavator's articulated arm with an electronic chip built into the hydraulic tool. This means that with the new Connect Energy Link coupler, attachment recognition is intuitive and immediate. Everything is automatically configured in advance from the driver's seat, without the operator needing to become physically involved in any way. Furthermore there are no more hydraulic settings to manage as the central system takes direct control of adjusting flows and pressure.

www.mecalac.com



#### **VTN Europe**

Surprising news for bauma, is that the Italian demolition attachment manufacturer, VTN Europe, will launch its own fully automatic quick coupling system. So far PDi has received very little information about the new system called 'Link-o-Matic', but what we know so far is that it is a fully hydraulic and automatic system where demolition attachments can be changed in seconds, directly, without that the operator having to leave the cabin. We have no information about that the system which is produced in cooperation with a quick coupler manufacturer, with more information set to be released at the VTN Europe booth at bauma.

#### www.vtneurope.com

#### Arden Equipment

A company that has strongly been gearing up during the last couple of years is Arden Equipment from France. Daniel Dupuy, president of the company, stated to PDi that during 2018 it grew by 18%, recently opening a subsidiary in North America. Exports of the company's products account for 65% of turnover, and are said to be increasing. Arden Equipment now has a comprehensive range of attachments for handling, sorting, demolition and recycling applications, with its series of universal shears with built in dust prevention, called Arden Jet, being its latest newsworthy development. The Arden Equipment tool range is set to expand and a number of new demolition tools will be revealed at bauma. The whole tool range will be remodelled over time, and a number of new models added, with Arden Jet being available on all demolition tools including its breakers in the near future. Arden Equipment also has an extensive range of quick coupling systems for its attachments developed in house, with new solutions for quick tool exchanges set to be introduced at bauma.

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### **Arden Equipment sets out to conquer North America**

Arden equipment, based in the north east of France in the Arden region, recently opened a US subsidiary. The company, which supplies a wide range of attachments, has developed and launched a number of recent innovations for security and environment - such as Arden Jet technology - into the American market.

The French manufacturer Arden Equipment specialises in hydraulic attachments for excavators, supplying its offering to various sectors, including the demolition, recycling, quarry, rehandling, earthmoving and associated industries. As such, it has just announced the opening of a US subsidiary located in Chicago, Illinois. This move signifies that Arden Equipment is ready to take on a significant challenge to become one of the major players in the American market by delivering high quality and innovative attachments, whilst strengthening its aftersales service to meet market expectations.

Véronique Le Provost, the business development manager responsible for North America at Arden Equipment, has already begun looking for suitable

dealers in the market. "We are aware it is a true challenge for us because we know how important it is for Arden Equipment to position itself in such a market with so many opportunities, and we have to measure up to the market and its requirements." To this end Véronique has been criss-crossing the Unites States and Canada in order to develop strong partnerships with dealers, resulting in Arden Equipment now being ready to take on the challenge it faces with its new subsidiary in the Unites States.

Véronique Le Provost and Daniel Dupuy, the president of Arden equipment Inc., will both be present on the Arden Equipment stand at the National Demolition Show in Denver, Colorado from 22 -25 March. They will then both travel to Canada to visit Americana in Montréal on the 26 and 27 March, as well as the National Heavy Equipment Show which will be held in Toronto on the 28 and 29 March to connect with new dealers.

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'Necessity is the mother of invention' they say, and often they are right. This age old adage is a perfect illustration of the story of Spanish based Xcentric Ripper, whose eponymous flagship product was indeed born out of dire necessity. When the 2008 banking meltdown paralysed the global construction industry, the Spanish market (by that time already in recession) just spiralled downwards. But thanks to the resourcefulness and resilience of Xcentric Ripper's indomitable founder Javier Aracama, the company eventually managed to turn adversity into a triumph. Andrei Bushmarin reports.

The city of Vitoria-Gasteiz is the official capital of the province Alava and, being the seat of the government, it is the de facto capital of the entire Basque country. Second in size only to Bilbao, Vitoria is a vibrant multicultural city, and home to many local and global businesses including Xcentric Ripper International.

#### Rock solid man

Javier Aracama belongs to that particular breed of people whom we typically refer to as 'self-made'. People like him tend to choose their own way in life rather than just follow a well beaten track. He was only 25, fresh from the Eibar Engineering School, when he founded his company Grado Cero Sistemas in 1990. The fledgling enterprise started out offering steel milling services to local suppliers of machines and tools. It was not before long that Javier noticed the subpar quality of quick couplers existing in the Spanish market at that time. So Javier developed his own version in 1991, with the new product really hitting the spot for users. Quick hitches

and excavator buckets designed and built in-house lay the foundation for the company's continued success in the domestic market for the next 15 years.

#### **Xcentric Ripper vs Grim Reaper**

Grado Cero was on a roll in 2008 when the infamous



Xcentric Ripper International's headquarters and manufacturing facilities in Vitoria-Gasteiz, Spain.

global credit crunch began to rear its ugly head in earnest. All of a sudden Spain's entire construction industry ground to a screeching halt, with no bank daring grant a loan for a construction project. Within months Grado Cero's monthly output plummeted to single digits, and the manufacturer found itself on the brink of a financial abyss. Going international was the only viable solution, but that required a truly unique product. Inventive as ever, Javier came up with the idea of a work tool that would soon become known as the Xcentric Ripper. The underlying ambition behind this innovation was to create an excavator attachment that could outperform a hydraulic breaker in most applications. It took six months of tests and trials to tweak and fine tune the product, and in 2009, the XR35 model was launched onto the market. Australia was the first country to get a taste of the new machine, followed by France, Canada, Netherlands and Russia; and so Xcentric Ripper International began its march across the globe.



# FOR EFFICIENT DEMOLITION!

### JR RAMON Demolition invests in QilQuick products

The OilQuick quick coupler system enables the operator to change quickly between various mechanical and hydraulic attachments from inside the cab.

JR RAMON Demolition, with 70 employees, recently added OilQuick quick coupler to its 80,000-pound excavators.

"Within two months of adding these couplers, I noticed the increase in production. These couplers have changed the way we look at a project and have increased our efficiency on the job."

Timothy Ramon, President at JR RAMON Demolition, Texas

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- · Protected hose run.
- Improved safety.





#### Making an impact

Unlike the conventional rippers based on the principle of vibration, Xcentrics are designed to make an impact, both literally and figuratively. It is made possible thanks to the manufacturer's patented 'Impact Energy Accumulation Technology' built around an airbag accumulator in the tool's shank. Pressurized up to 5bar, the accumulator accelerates the downward movement of the attachment resulting in a powerful impact.

In order to test its products in the making, Grado Cero acquired local excavation contractor Finerlan in 2010. Using the Finerlan fleet of excavators, the manufacturer trials new attachments in the most challenging, sometimes brutal, conditions. The Xcentric rippers are suitable for 8t to 150t carriers and now come in two series: the Standard and the Mining. Both feature the

same 'Impact Energy Accumulation Technology', the main difference being that the mining attachments operate at lower frequency while generating higher impact force to provide consistently high performance in hard rock applications. It takes time to educate customers on the technology's capabilities and benefits but, according to the manufacturer, everyone eventually becomes a convert. Javier Aracama puts it like this: "Xcentric ripper is the machine that everyone needs even if they might not realize it just yet."

#### **Bucket list**

In the mid-2010s, Grado Cero decided to complement

the Xcentric range with crushing and screening buckets. A logical evolution for the Spanish manufacturer, it allowed the company to become a one stop supplier

A hands-on leader, Javier Aracama trials new attachments himself in the most challenging, sometimes brutal, conditions.

of stone extraction, crushing and screening solutions, with the first crusher bucket being unveiled at Intermat four years ago. By 2019 the crusher bucket line up was expanded to seven models to fit excavators ranging in weight from 13t to 85t. In 2017, a first screening bucket model was designed and delivered to a customer. Also that year, Xcentric crusher buckets were awarded the prestigious 'Accesit' Prize for innovation at the SMOPYC exhibition in Zaragoza - the most important construction trade show in Spain.

#### 'Steel farmers'

Honouring its agricultural background, Xcentric position itself as 'farmers that cultivate steel instead of the land'. Farmers are known to be down to earth, honest and hard-working, and this is the message that the manufacturer wants to convey to its customers. The Xcentric Ripper logotype of a stylized woodpecker, which symbolizes quiet elegance and perseverance, is now recognized throughout the world, not in the least thanks to the active use of social media. All attachments are produced at the company's 20,000m2 facility in Vitoria with a staff roster of 80. Another 10, including Javier Aracama, are involved in sales and various administrative activities. The very definition of a hands on manager, Javier handles all international sales himself, which gives him the ability to access first-hand information about a job site and give out the best possible advice.

At the moment Xcentric tools are sold in over 80 countries through a 70 strong dealer network, with customers from France, Benelux, Germany, Canada and Australia being the most regular buyers. As of recently, Xcentric has been enjoying considerable success in China, particularly with crusher buckets. According to the company, the sky is the limit for machinery manufacturers in the 'Heavenly Empire' that has been investing heavily in cutting edge technologies and equipment in the past decade. Last year Xcentric's turnover reached a solid €19M, with rippers, crushing and screening buckets accounting for some 75% of the figure. In early 2019, the manufacturer finalised the design of its first ever drum cutter, with the new attachment being soon available in two modifications to fit 7t to 13t excavators.

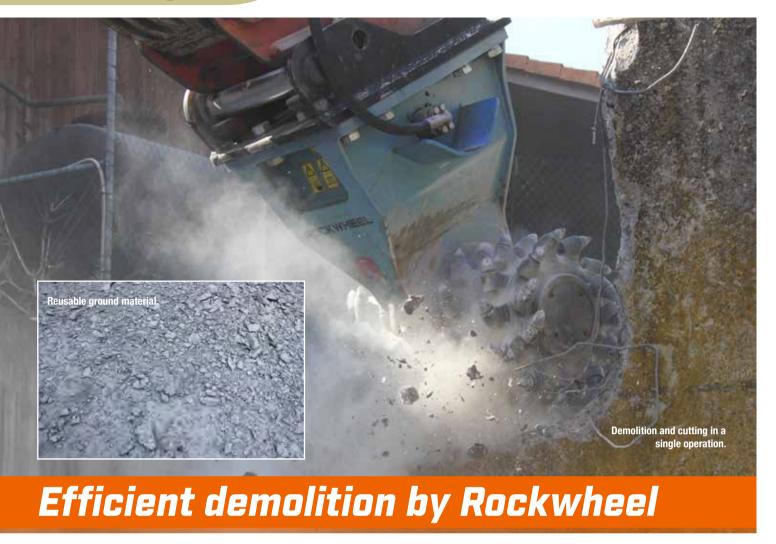
www.xcentricripper.com



All attachments are produced at Xcentric's 20,000m2 facility in Vitoria with a staff of 80.







The cesspit in Nesselbach is no longer needed, and displaving high levels of power and speed. the Rockwheel D15 has ground through its 200m concrete walls. Only the untouched back wall and the ground material the size of pebbles was left, with the latter material being then used on site to form the foundations of a new development.

Only a small part of the Nesselbach cesspit was required to remain in place, as this formed the retaining wall for the property next door, which is on a higher level. This required a vibration free demolition of the cesspit to avoid shock loads going to the retaining wall which could cause cracks, making it an ideal job for a Rockhweel. With low vibrations, efficient performance and high levels of power, the drums with carbide tips have ground through the concrete, with even the 6mm concrete reinforcement being dealt with. After only two hours, the job was completed and all involved satisfied with the outcome.

#### Rockwheel is irresistible

The Rockwheel D15 power pack comes with 41kW hydraulic power and is designed to work on excavators between 12t and 18t. As with all Rockwheels, it easily cuts reinforced concrete. With massive end to end hardox plates and carbide picks, the robust equipment is nearly indestructible. Furthermore it cuts material to pebble size making the processed material easily transported or used on site. Rockwheel operations are low noise and fulfil the requirements and guidelines for work tools operating in town centres and residential areas. Low vibrations and low noise levels also protect both excavator and operator.

#### About Rokla GmbH

Rokla GmbH in Langenburg has been building cutting units under the Rockwheel brand since April 2013. The

team includes the British designer Ian Webster, who 25 years ago developed the technology for these hydraulic cutting units. Webster brings innovation and superior technology to Rokla, with production being handled in Langenburg. Worldwide sales, production and service are under the direction of the two company founders: Robert Piasecki and Klaus Volkert (senior employees at Terex until 2013). With the greatest experience in the market in the field of hydraulic cutting units, and new innovative technology, Rokla has set new standards, now being considered to be a worldwide technology market leader.





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**ERKAT**a byword for quality and forward thinking in 2019

Erkat has for the past 20 years developed a range of robust, high quality special cutter attachments. Now integrated into Epiroc, the company is looking to develop new areas of application and flexible usability for its broad range of products, as well as seeking to develop a sustainable solution to the problem of fine dust pollution on construction sites.

#### Flexible transverse drum cutters

Developed for excavators ranging from 3t-70t, Erkat supplies a wide range of different drum cutter sizes (ER50-ER3000), plus a wide array of different cutting heads depending on the application (rock cutting head, profiling head, cutting wheel, mixing head, wood cutting head, brush drum cutter). All possess a robust design, high load bearing capacity, low maintenance requirements, easy handling and, most importantly, deliver high levels of cost effectiveness. The company's transverse drum cutters can also be retrofitted directly on site through the straightforward and rapid replacement of the cutting head. The ER series is suitable for work in duct and tunnel construction, special civil engineering, demolition, trenching and mixing soil formations alike. It is no problem to use in particularly sensitive areas, as despite its robust design, it delivers low vibrations, thus making it possible to work quietly.

One striking feature of the ER series is the one sided mounting of the cutting wheel on the opposite side to



the motor (the motor side has a protective covering over the output shaft), allowing cutting with a very small side clearance directly against walls or side obstacles. This is ensured by a standard intermediate bracket that allows the cutter to be turned manually in 22.5° increments. As such, making targeted slits in rock, concrete or asphalt no longer presents any challenge. If so wished, it is possible to even execute a continuous 360° turn via an additional hydraulically operated rotation module (ERU).

#### Future oriented dust extraction systems

Dust diseases (pneumoconioses) are amongst the most common officially recognised occupational diseases, with dust particles at the workplace being considered to be hazardous substances. Erkat, has thus made what is said to be a significant contribution towards occupational health and safety on construction sites with the developments of its modern dust extraction systems. Instead of focusing on a dust extraction systems using a water spray, Erkat, has developed a solution based on spraying water onto the drum cutter - which can also be retrofitted – with the water spray being applied directly to the cutting head or milling area, with the water supplied via an Erkat pump system. This system is already being used successfully on the transverse cutting heads of its ER100-3000 models, with further development being planned.

For indoor use where water spraying is not possible, Erkat also provides small drum cutter models with a dust exhaust hood for dry dust collection. This dust extraction system ensures maximum dust extraction precisely where the dust is produced for optimal dust suction (uses include transverse drum cutters). If required, it can also be mounted to conventional extraction systems. The company is also said to be working on other systems with differing numbers of water nozzles, producing special modules for specific working conditions, all with the future in mind. In the cutting head flushing system, for example, the water nozzles are integrated into the rotating cutting head and the water supply is fed via the gear box. Water spraying takes place within the very area in which the bit will be applied.

# **New Cat multi-processors** feature quick change jaws and other features

The three new Cat MP332, MP345, and MP365 multiprocessor models are heavy duty, high production tools that accept multiple interchangeable jaws for taking on a variety of specialised demolition tasks. The new models, compared with previous models, can cycle 50% faster and generate up to 19% greater cutting/crushing forces. An innovative locking system enables a single operator to typically change jaw types in 15min or less using only standard hand tools, with an included stand securely and stably holding unused jaw sets.

The new models comprises of a concrete cutter with the outer jaw cracking concrete, and inner jaw shears for steel. The demolition model cracks thick concrete structures; the pulveriser crushes concrete and separates rebar, whilst the shear cuts structural steel, pipe and cabling. The tank shear cleanly cuts tanks or plate steel at right angle on three sides, whereas the universal cuts steel and crushes concrete.

The new multi-processor models are designed with 'speedbooster' technology that automatically shifts hydraulic action between force (boost mode) and speed (speed mode) as operating

conditions vary, resulting in optimum efficiency and productivity. Under no load conditions, the speed valve allows high hydraulic flow to rapidly open the jaw or close it to contact. At material contact, maximum cutting/crushing force is applied. Depending on the multi-processor model and jaw being used, forces range from approximately 460t-1,270t.

The design of the new models results in greater power when installed on small excavators, and the balanced design also keeps the centre of gravity close to the host machine. As an added benefit, control programmes for the tools are incorporated into the operator displays of Cat Next Generation excavator models. To ensure long term durability, jaws are protected with easily replaced wear parts. An armoured cylinder rod and a protective structure for the main body of the cylinder ensure that this critical component is kept from harm, even when the jaw is deep into debris. Most cutting blades can be flipped in two ways, allowing four cutting edges to be used before replacement is

> required. This design lowers operating costs and keeps service

time to a minimum.



Keestrack will display a total of nine processing plants at bauma 2019, thereby displaying its entire product range for mineral recycling and quarrying (Stand: FN1017/1). Receiving its international unveiling, Keestrack will introduce the B7e jaw crusher at the show. This is a new 700tph machine which replaces the smaller B6. The plant's core is the tried and tested CJ 412 jaw crusher with a 1200mm x 830mm inlet for feed sizes up to 700mm, and a wide, hydraulically adjustable CSS range of 75mm -250mm.

The B7e is only available as plug in hybrid, with the crusher being driven by a 132kW electric motor, with another 55kW electric motor powering the hydraulic system for the tracks, the lifting cylinders, the vibrating feeder with two deck pre-screening and all conveyors. According to Keestrack, energy savings in the region of 80% can be obtained in emission free plug in operation from mains or external gen sets. The plant weighs just under 69t (with options) and is highly mobile. By detaching the 6m<sup>3</sup> feeder unit, the weight drops below 60t.







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# Mobile dust suppression design features Tier IV Final gen set

Bosstek has updated its self-powered dust suppression equipment with Tier IV Final compliant generators, ensuring compliance in all 50 states of the US. The company made the announcement with the debut of the new DustBoss DB-60 FusionTM, a suppression system driven by an electric motor paired with a gen set powered by a heavy duty four cycle indirect injection diesel engine. Designed, engineered and assembled in the USA, the generator features a dual containment fuel cell, heavy gauge lockable enclosure and oversized brushless alternator for easy starting.

Permanently mounted on a rugged road worthy trailer, Bosstek's Fusion line up is an effective means of delivering versatile, mobile dust suppression technology to sites that lack a readily available power source. The company expects to unveil two other Fusion models in early 2019, giving customers the ability to select the size and coverage range needed to best suit their operations. The new generator series is designed to provide noise reduction, and comes with a multi voltage switch with utility power outlet in all voltage modes. The digital engine / generator controller is equipped with single button stop-start and large fuel capacity providing 24h of run time.

The DB-60 Fusion drives pressurized water through a circular stainless steel manifold with 30 atomizing spray nozzles, then launches millions of tiny droplets with a powerful fan. Atomized mist droplets of 50 to 200 microns in size are thrown out in a 60m cone at an adjustable 0 to 50° elevation angle, capturing airborne dust particles and dragging them to the ground. Unlike industrial sprinklers used for the same purpose, which can require hundreds of litres of water per minute, the DB-60 only uses about 87l/pm to help avoid pooling or runoff.

A touch screen panel for controlling the dust suppression unit is encased in a NEMA 3R cabinet, allowing operators to control oscillation, booster pump, fan and water. The cabinet is constructed for outdoor use, designed to provide protection against solid foreign objects (such as dirt), air (dust, emissions), water (rain, sleet, snow) and ice formation. The system provides mobility and versatility and is able to deliver up to 5,834m2 of coverage.



# Atlas Copco to showcase latest innovations in

# clean drive technology at bauma 2019

At bauma 2019 Atlas Copco is set to unveil new sustainable portable air, power and flow equipment that reduces operational expenditure through enhanced clean drive technology, connectivity and versatility. Andrew Walker, president of the Atlas Copco Power Technique business area commented: "Our forthcoming innovations are powered by the latest advances in lithium ion batteries, Stage V compatible engines and energy efficient electric motors combined with digitalization and connectivity. By further optimising this equipment through our expertise in drives and controls, we are able to provide customers with the solutions required to improve their performance while also supporting efforts to reduce carbon and noise emissions.'

The company will also use the bauma exhibition as a forum to provide companies with guidance about Stage V engine regulations, and how its equipment offers a smooth transition towards compliance and beyond. With this in mind, Atlas Copco will launch a free eguide prior to bauma that outlines what Stage V is, its implications for operators, and how it applies to the current and future design and use of portable compressors, dewatering pumps, light towers and generators.

Atlas Copco will be unveiling a new range of clean drive technology equipment: the E-air electric powered portable compressors, and the battery powered HiLight Z3+ light tower at the Munich show. These new clean drive technologies offer an alternative to diesel driven units in metropolitan construction areas and public events. Easy to install and connect, the most important innovation of the E-Air compressors and Z3+ light tower is that they emit no emissions, meaning owners don't have to worry about any future emission regulations.

In areas where it is not possible to use electric or battery powered technologies, such as remote locations without access to the grid, or in applications with high power requirements, Atlas Copco's integration of fixed speed and variable speed driven motors within its Stage V compliant diesel powered construction equipment are of benefit. New innovations to be exhibited in this area include the latest models from the QAS5 generator range, as well as the new QAS VSG generator with variable speed technology. Developed in response to today's operational challenges, the latest QAS 5 models offer end users in the construction, events and industrial sectors quieter operation, 20% smaller footprint than comparable models on the market, reduced engine emissions, faster 'plug and play' paralleling, enhanced fuel economy, 24h autonomy and lower total cost of ownership.

Furthermore, Atlas Copco will showcase the new Smart Air XC4004 compressor controller, which is IP67 rated and enables users to increase uptime via an easy to use interface. In addition, the latest models from the XATS portable compressor range, which feature the intuitive PACE system will be presented. This provides the versatility to select multiple pressure and flow settings, enabling operators to improve utilisation of a single compressor and increase their return on investment.

In the run-up to bauma, Atlas Copco is set to announce new additions to its WEDA+ range of electric submersible pumps, including new solutions for sludge and slurry applications. At the exhibition itself, the company will showcase its complete portfolio of surface pumps. This includes the PAS dry pump solution that supports many different applications such as sewage, metropolitan construction and emergencies.

Visitors to the show will also have the opportunity to learn about the latest version of the FleetLink telematics system that enables operators to track the location and utilisation of their assets in real time by scanning the QR code displayed on all Atlas Copco units. Easy access is provided to all relevant content through the PowerConnect app including manuals, spare parts, service videos and much more. In addition, Atlas Copco will be launching the new LightThePower app to help customers correctly size their light and power equipment, and achieve easy paralleling.





A complete range of three floor grinders, three dust extractors and a pre-separator with a focus on ergonomic design and user-friendliness, have been launched for smaller grinding jobs by specialist manufacturer HTC. The new range of smaller floor grinders and dust extractors come under the concept name of 'Start & Grind', and are simple, robust, and easy to operate machines. These entry level products are especially suitable for floor preparation and can tackle anything from edge grinding to polishing medium sized surfaces. They will replace the HTC Greyline range.

The new range has been engineered for use by anyone whose experience of floor grinding is limited, but who wants to get started right away. This makes them ideal rental equipment. A special focus has been put on ease of handling and transportation as well as user safety. The grinding machines feature a folding chassis which can also be separated from the grinding head, and greatly facilitates transportation. They are also fitted with

floating covers for efficient dust collection, and an hour counter to clock the machine's total operating time.

All the dust extractors now not only have a HEPA H13 filter, which captures the finest dust particles, but also carry H Class certification, which is the highest international standard for testing wet and dry vacuum cleaners.

Cathérine Königk, head of marketing at HTC, sums up the new range: "We are delighted to be able to offer our customers this new range of practical and robust entry level machines. We want to enhance the entire floor grinding experience and that starts at the transportation stage, for example, with the separable chassis for easier loading into a regular van. It should then be simple to assemble the machines, get them going and do the job. These high performance machines are manufactured to exacting safety standards and you can feel their quality when working with them. I'm therefore certain they'll be greatly appreciated by our customers."



The Lokotrack Urban LT106 has been developed specifically for crushing in densely populated environments. It delivers up to 60% better noise protection, as well as reducing dust emissions making it easier for users to get an environmental permit.

The Lokotrack Urban series was developed to enable the running of crushing operations in the most heavily regulated urban locations. Getting an environmental permit is often a challenge when crushing in these densely populated areas, but the new Lokotrack Urban series makes operations much easier, minimising the impact for people living and working around site.

Environmental permits are usually based on the noise level caused by the crushing operations. Although noise levels of 85dB is the most commonly defined limit that requires ear protection, even lower levels can be disturbing for people living around crushing sites. With the Lokotrack Urban LT106 patent pending solution, the distance drops by approximately 60%, from 23m-25m to 9m-11m. Outside a protected area, this distance can be even more significant, making a big difference for those experiencing crushing operations. In addition to very low noise emissions, the Lokotrack Urban series

includes a very advanced dust suppression system. The dust is funnelled to stay inside the mobile crushing plant with a high pressure water spraying system absorbing dust particles from the air.

The Lokotrack Urban series includes crushing plants that are very easy to move. Environmental features are integrated into the mobile plant thereby requiring no special attention or maintenance. This enables recycling in an urban environment, with aggregates often being able to be used in the same location with hauling often being avoided completely.

#### **Process overview**

In effect the Lokotrack LT106 is a primary crushing plant for recycling or processing rock based material. It can be used as the first unit in a multistage crushing process or a stand-alone unit in reducing applications. Material is fed onto the feeder by an excavator or wheel loader. The two stage scalping section removes the fines, which can be guided into the main conveyor or side conveyor. Output material size is controlled by the crusher setting. The crusher is hydraulic driven to ensure trouble free operation.



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At bauma 2019 German manufacturer TML will be showing its new Unidachs 110 demolishing machine, which has been developed especially as a manipulator for a diverse range of attachments. This is an unusually small and compact machine designed for working in very tight spaces and where working space and height are restricted, with a radio remote control that allows the operator to work at a safe distance.

The new Unidachs 110 has a compact design and a unique 360° endlessly rotatable boom, high manoeuvrability and hydraulic drive. The width of the undercarriage is only 1,315 mm and the height is 1,635mm. This allows access to working areas in tunnels or buildings that are not easily accessible for other machines and due to the remote operation the operator is always at a safe distance. When compared with mini excavators with an articulated arm, it has a further degree of motion.

The 360° boom rotation, combined with the double articulated cantilever boom, offers a very high level of flexibility for attachments such as rotary drum cutters, hydraulic hammers, ripper buckets, ripper hooks, shears, pulverisers or buckets.

The machine is designed for applications in tunnels, mines, the demolition or dismantling of buildings, as well as for de-bricking rotary cement kilns. Despite its compact size, depending on the attachment, and in combination with the kinematics of the boom, a working radius of up to 5,000mm can be reached. Every point of a cross gallery profile from which material needs to be removed can be more or less reached without repositioning. The machines are available with a choice of dieselhydraulic or electro-hydraulic drives. Diesel engines have either 26kW (EU Stage 3a) or 18.5kW (EPA Tier 4), with the electro-hydraulic unit being 25kW.

Volker Bongardt, international sales manager of TML Technik GmbH, sees great advantages for his customers: "The machine users appreciate the combination of the cantilever boom and the boom rotation, especially the fact that they are able to work from a single position and at the same time reach areas that was not possible in the past.

Demolition robots and mini excavators with articulated booms do not offer this kind of kinematics. Our customers are now able to profit through the multi functionality known from other machines that we build."

#### **Applications**

The new Unidachs 110 is suitable, among other things, for applications in mining and tunnelling for penetrating cross galleries, profiling tunnel cross sections, scaling with a hammer, a rotary drum cutter and clearing with a choice of buckets. In addition, it can be used as a carrier machine for drilling rigs, setting tools for bows and anchors. Thanks to its compact design and manoeuvrability, the Unidachs 110 can also work in hard to reach areas during demolition work. This makes it particularly suited to dismantling or demolishing in hazardous areas, where the remote control is of use. It offers maximum safety for the employees on site and minimises potential dangers arising, for example, from collapsing walls or falling material. In addition, optional cameras can be installed on the machine. In the cement industry for example, when milling or reworking the inner surfaces of the rotary kilns, the 360° rotatable boom reaches every point of its working area without repositioning, and provides the necessary force to break the often heavily sintered refractory lining.

TML Technik will exhibit in Hall C5, booth C5.324 at bauma 2019.

# **NEW CAT** scrap shears enhance productivity

Caterpillar Work Tools has expanded its range of excavator attachments with three new scrap shear models - S3015, S3025, and S3035 - which build on the company's demolition and scrap processing technology experience. Designed for hydraulic excavators with operating weights between 8t and 40t, the new Cat shears feature optimum force to weight ratios that yield faster cycle times and more cuts per hour when compared with predecessor models. The new shears join the rotating models S3050, S3070, and S3090 as well as the straight versions - S2050, S2070, and S2090 - in the Cat scrap shear range.

The new shears feature a dual offset apex jaw design, resulting in increased cutting performance and efficiency. The new patent pending bolt on the piercing tip of the upper jaw further enhances productivity when piercing is required, protecting the moving jaw and shielding parent metal from wear as the moving jaw travels through the lower jaw. Structural reinforcements more effectively distribute the shear's cutting forces, and the apex jaw design, coupled with a larger jaw opening, results in greater cutting strength, especially when cutting profiles.

The powerful reverse cylinder is fully protected and allows a slim profile that improves visibility and



manoeuvrability in tight spaces. The knives and guide blades have four cutting surfaces that can be rotated before replacement is necessary, whereas a heavy duty pivot group can be tightened with standard tooling to keep the jaws aligned as wear occurs. Furthermore the new shears are maintenance friendly and feature field serviceable swivel and pivot group, which also reduces downtime. The operator is able to adjust the side play in the field without the need for special tooling by only tightening the pin. The greasing of the shear, including stick cylinder and boom pin, can be done from ground level, making this work safer.

The S2000/S3000 are manufactured from alloy steel having superior yield and tensile strength properties which contribute to longer overall life. Knife maintenance, wear plate replacement, and tip build up can be addressed quickly and easily, and are designed to fit Cat excavators, as well as other brands, with operating weights from 8t to 85t+.





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# **SUPERABRASIVE** launches all-new generation of grinders

At World of Concrete in Las Vegas in January 2019, Superabrasive, the manufacturer of the Lavina line for concrete grinding and polishing, launched an all-new generation of grinders called Lavina Elite. The new series includes a complete range of electric and propane powered grinders from 500mm up to 965mm. Additionally 635mm and 832mm (approx.) new remote controlled electric models were also introduced. Guided by contractors' experience, Superabrasive has developed an array of new features that will make grinding and polishing jobs easier. Completely redesigned frames provide superior manoeuvrability and easy tool changes, whereas dust proof grinding heads protect the internal components from dust and moisture and increase service life. The belts have been upgraded on 500mm, 635mm, 762mm models and the heads have a locking mechanism for safer tool attachment.

Elite grinders now come with integrated weights for adjusting the grinding pressure, and with a new dust suppression fine misting system, which effectively suppresses dust particles from 0.1 to 1000microns. This approach avoids the moisture problems of common spray type system used in combination with dust extractors. Water may also be delivered under the machine for wet applications, with the water pump also having been upgraded. The dust collection on Elite grinders is also improved; the hose connection is now closer to the dust source, and utilises a metal camlock attachment. All machines come standard with the new Lavina floating skirt with a flexible brush.

Superabrasive has further developed other user friendly features. These include adjustable LED lights in the front and back of machine; a phone charging station with a phone holder and dual USB port 2.0, a durable stainless steel cup holder and non-marking grey rubber tyres.



# Fully automated jaw change

The new Razer X multi-Jaw demolition tool (GRX) from Genesis Attachments enables excavator operators to change jaw sets in less than 2min without leaving the cab. The attachment body contains hydraulically actuated pins controlled from the cab that connect to the cylinder and jaw set. This enables the operator to change jaws without assistance, and while staying in the cab, making change overs faster and safer. The Razer X is available with cracker and shear jaws to process a variety of materials, and each GRX jaw set comes with its own stand specifically designed for correct positioning and efficient handling. Additionally, the GRX features bolt on and reversible wear parts to simplify maintenance, and a flat top head with bolt on bracket making it easy to change lugs for different carriers.



The new Makinex power box is a silent, emission free power supply available in several sizes and power configurations. This has been developed so as to alleviate fuel worries, and to mitigate loud portable generator noise and emissions. The power box is highly portable and comes complete with a rugged wheel system and lifting eye. The portable power box itself is a battery powered AC generator that stores electricity for use when and where power is unavailable. Sizes range from 4.4kW to 17.6kW.

The power box utilises 'pure sine wave power', which is considered to be the cleanest power available, and is used to run anything from computers to portable air compressors. It can cope with high surge loads meaning that it is able to deal with heavy loads not possible on portable generators. It is emissions free, providing 'green power' with no exhaust fumes. The power box operates silently and requires no oil changes, tune ups or repairs associated with conventional gas / diesel generators. Furthermore it is easy to use - turn it on and plug it in - and comes complete with a monitoring system providing usage stats, available power and so forth, through Makinex's smart phone application. The portable power box comes with a lockable NEMA3R cabinet for outdoor/indoor security, and heavy duty wheels for safe and easy mobility.



## First UK R-Series E26 & E27z excavators at KC Plant Ltd

KC Plant Limited, a new plant hire company based in Watford in Hertfordshire, has purchased the first Bobcat R-Series E26 2.5t and E27z 2.7t mini excavators in the UK. The E26 and E27zs are part of an order placed with Bobcat for 18 mini excavators, including the company's popular E17z 1.7t and E85 8t, as well as Bobcat hydraulic breakers. Rob Allenby, owner of KC Plant, commented: "I'm delighted with the new Bobcat machines and they have been very well received by our customer base. The build quality and the design of the new E26 and E27z are excellent. We have taken the canopy version of the E26 and the long arm version of the E27z zero tail swing (ZTS) model, which has a new cab that is the largest for this size of machine on the market. We are offering excavators for hire up to 20t, primarily in London and the surrounding counties. I chose Bobcat to supply our new compact machines to drive our expansion plans in 2019."

## **CLEANFIX** reversible fan

Cleanfix reversible fans are being used more and more in construction machinery to prevent overheating and increase the efficiency of the engine. This development has seen SMT Netherlands BV using Cleanfix reversing fans in its Volvo EC750E excavator, as the machine works in extreme conditions, with the engine's cooling system exposed to dirt, cement and lime containing dust particles. Cleanfix reversible fans provide the optimal cleaning solution for cooling systems in these working conditions. By turning the fan blades through the cross position, the blade profile is always perfectly aligned for cooling and cleaning. This guarantees a high pressure and airflow in both directions. A clean radiator means reduced maintenance and less downtime, with the productivity of the machine thereby being increased. In recent months, other Volvo EC750E excavators have been similarly equipped in several European countries.



The 330 and 330 GC 'Next Generation' 30t excavators from Caterpillar have been developed to increase operating efficiency, lower fuel and maintenance costs, and improve operator comfort compared to previous models. The new excavators offer unique combinations of features designed to match contractors' productivity and cost targets. The new excavators aim to deliver high production performance, with the new Cat 330 featuring standard integrated Cat Connect technology and high power and lift capacity. The new Cat 330 GC combines the right balance of productivity features with reduced fuel consumption and maintenance costs. The result is high reliability and low cost per hour performance.





# **BROKK** introduces new attachments

Brokk will introduce several new lines of attachments at bauma 2019. The new lines include a whole new range of Brokk drum cutters and an upgraded range of demolition grapples. In addition, the full range of the recently announced Brokk hydraulic breakers and new Darda concrete crushers will be on display.

Brokk demolition robots are historically mostly associated with their core attachments such as hydraulic breakers and concrete crushers. However, as Brokk machines have become more technically advanced and market demand for mechanization has increased, demolition robots are increasingly used for a more varied range of applications requiring additional tools. "One of the key strengths of Brokk demolition robots is the capability to carry and efficiently use a wide range of different attachments. In fact, the robots we build today are increasing multi-purpose machines rather than purely demolition machines," says Martin Krupicka, chief executive of Brokk. In order to meet this demand, Brokk has developed new attachments and upgraded its machines to work well with a wider range of tools.

#### **Breakers and drum cutters**

In 2018, Brokk announced its own line of hydraulic breakers, with a range of eight high performance models for Brokk demolition robots. This range will be extended at bauma, and at the same time Brokk will introduce its own range of drum cutters, BDC (Brokk Drum Cutter). The range starts with the brand new BDC 40 for the smallest Brokk 60 model, BDC 50 and BDC 100 for the mid-range of Brokk robots, and BDC 250 for the biggest Brokk machines. This introduction represents the world's first complete line of drum cutters that are designed and optimised specifically for use on demolition robots. They have been developed due to the increased use of Brokk machines in underground applications, and the use of Brokk machines to carry out more applications in the construction sector.

#### **Demolition grapples** and drill attachments

Brokk will introduce its upgraded line of demolition grapples at bauma, including the new G32 grapple designed for the most compact Brokk models. The new model features a wider grip of 320mm and an improved rotating function. Together with its larger sibling, the G50, Brokk has developed a unique solution for 'soft demolition', as when compared to standard grapples on the market, the design of Brokk's G-series of demolition grapples is optimised for use on Brokk's demolition robots. Furthermore Brokk has invested in developing

rock drill attachments for its machines. These are customised and fully integrated with the control and operation of the Brokk robots. Now the range has been extended with the powerful new TE 326 drill attachment used on the new Brokk 300 and Brokk 500 models. This creates a complete range of rock drills for Brokk machines, from the small TE160 used on the compact Brokk 110 to the powerful TE360 used on the largest Brokk machines.

Brokk demolition robots are increasingly becoming the Swiss army knife of the construction industry, being used for a wide variety of applications and tasks. With their flexible and compact design, their use is only limited by the availability of different types of attachments. For this reason, Brokk is focused on developing and extending its range of specialised attachments.

# New concrete crushers from Darda

Parallel to the launch of new robots by Brokk, its German subsidiary, Darda GmbH, is presenting three new crusher models at bauma 2019. They are designed as a low noise, yet powerful attachment tool for the new demolition robot series and for mini excavators in the 2.5t to 9t class.

The new Darda CC440, CC480 and CC580 crushers come in a modern, uniform design being both rugged and high performance. "The focus of the new designs was on an even higher power-performance ratio, a uniform design and even greater ruggedness, as well as new crushing tips for the two larger crushers," says Darda engineering and design manager, Mathias Reichmann. In technical terms, they are equipped with a completely new type of pressure booster, which translates into speed and even higher crushing forces. All crushers retain their proven options, such as additional crushing teeth or full 360° hydraulic rotation.

The use of low noise concrete crushers as an alternative to hydraulic breakers is becoming more prevalent due to the high noise generation often generated by breakers. Health and safety regulations concerning noise, as well as the vibration risks caused by hydraulic breakers, have led to demolition contractors adopting other methodologies such as the Darda crushers. The use of a concrete crusher in combination with a mini excavator offers an attractive alternative to usual methods, with a concrete crusher providing greater levels of safety and comfort for the operator as there is no need to chisel away the floor often beneath the operators' feet. Noise and vibrations levels have also been reduced, which together with other factors, have resulted in operators and contractors benefitting from the attributes of a Darda concrete crusher when used in conjunction with an electro hydraulic, remote controlled Brokk demolition robot.

Darda has worked with Brokk for over 20 years, initially acting as the exclusive distributors for Brokk in Germany and Austria prior to being acquired by the Swedish manufacturer. The combination of Darda and Brokk equipment is able to deal with strong, reinforced concrete structures such as elevator shafts, piers, concrete walls and ceilings, enabling them to be dismantled efficiently and in an environmentally friendly manner.



#### Furukawa Rock Drill extends FXJ hydraulic breaker series

Since 2014 FRD Furukawa Rock Drill has created a complete new line of FXJ series hydraulic breakers. The FXJ series is the synergistic result of more than 50 years of experience and continuous developments, combined with today's technology. Two new models will be introduced to the FXI series at bauma 2019: the FXI 225 and FXI1070. The new FXI model 1070 will replace the previous F100XP, being 5t heavier, and will have more impact energy than its predecessor. Thanks to the new developments on the FXJ1070, the new breaker will have improved breaking power, durability and the lowest lifetime ownership cost in the range.

Due to these continuous developments of the FRD in-liner systems and various other patented solutions, the new breakers provide an increased power to weight ratio. A weight reduced breaker with higher impact energy results in larger breaking power, with the models requiring less maintenance with minimum downtime, and providing easy handling. A wider range of oil flow offers the possibility to attach the breaker to various excavators, with the breaker being able to be used on different

excavator sizes thereby providing optimum use of equipment.

Thanks to a new mono-block design there are no through bolts needed resulting in higher performance and more stability. With a new slim design, the FXJ series is ideal for use on demolition sites, or as a production breaker at a quarry, with the slim design also increasing the efficiency in trench and channel works. Both noise and vibrations are also reduced by the newly designed dampening system.

The high production quality combined with the new mono-block construction, the newly designed rod retaining pins, and FRD spare parts direct from Japan, provides a longer life time of the individual components, which greatly reduces the overall maintenance costs. The new models offer the features found on the previous range, such as anti-idle blow, adjustable piston stroke, connection for central greasing system (FRD Sencio Lubrico), connection for under water operation, dust intake prevention, and so forth, which all come as standard. From 2019 the FXJ series will be available in eight models for excavators ranging in size from 9t to 100t.

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LEILI TOOLS CO: A 'FORCE OF THUNDER' IN

# DIAMOND WIRES

According to recent surveys, China invests more in new technologies than any other country in the world. Having been a global manufacturing hub for decades now, there is virtually nothing that the Celestial Empire cannot produce. Based in the province of Heibei in Northern China, Leili Tools Co is a diamond wire specialist that promises to become a major international player in the concrete sawing industry. Andrei Bushmarin reports.

Oriental nations have a wonderful tradition of giving eloquent and meaningful names to both human beings and things. When back in 2009 Mi Zhongliang and Liang Haiwang were searching for a name for their newly founded company, they wanted it to convey the notions of power and speed. After a brainstorming session, the founders settled on the word 'leili', meaning 'a force of thunder' in Chinese. As will be evident from the story below, the name has proved quite prophetic.

#### Bricks in the 'Chinese wall of accomplishments'

Leili Tools started out as a small (by Chinese standards) manufacturing enterprise with a staff of 20. From the very beginning, the company decided to focus on diamond wires as the most complex and technology intensive type of diamond consumables. In its formative years Leili Tools developed at a breakneck pace, and already by 2015 it gained a market share of 10%, a whopping number for a country as huge as China. Also that year Leili Tools had an international breakthrough, having started to supply diamond wires to neighbouring Southeast Asian countries. In 2016 Leili Tools added wire saws to the product range, thus further consolidating its position as a one stop supplier of wire sawing





Mr. Liang Haiwang, General Manager and co-founder of Leili Tools.

55,000m per month, with wires for construction applications accounting for some 60% of the total output. The manufacturer's signature models include vacuum brazed and sintered types for cutting heavily reinforced concrete and straight metal. Featuring 40 to 48 beads per/m, synthetic rubber spacers and metal springs, the wires ensure high performance and reliable operation throughout the entire life cycle. Products for stone extraction - diamond wires and electric wire saws – are the second pillar of Leili Tools' business. As far as the quarry industry is concerned, India, Australia and Russia top the list of Leili's biggest markets. Now the Chinese company is also eyeing such South American countries as Brazil and Argentina for further expansion.

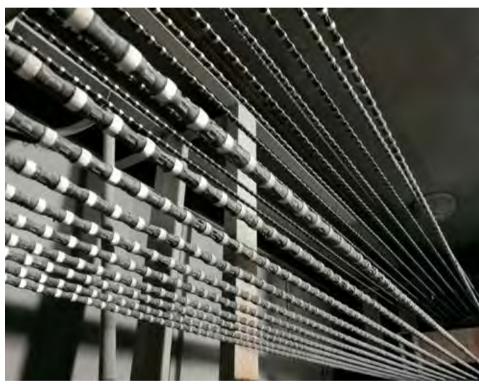
#### Domestic market secured, global one beckons

The notion of being a reliable partner to its customers is the cornerstone of Leili Tools' business philosophy. Consistently high quality products, prompt delivery and efficient after sales support are the criteria that the Chinese company strives to meet in day to day operations. An undisputable market leader in its home country, particularly in the construction segment, Leili Tools is still a rookie internationally. This





Leili Tools' International sales department.



The current production capacity for diamond wires at Leili Tools averages at 55,000 meters a month.

rookie, however, is full of drive and creative ideas supported by ten years-worth of manufacturing experience. Leili's immediate goals involve penetrating the US and Japanese construction markets, and as such, the Chinese manufacturer has added World of Concrete to its roster of trade shows it traditionally exhibits at. Among those already on the list are bauma Germany, the 'Big Five Dubai' and CTT in Moscow. Apart from these international events, Leili Tools is going to participate at a number of local exhibitions in Southeast Asia and Brazil next year. Diversification in the wall saw blade segment is also in the company's short term plans which will see in 2019 the first Leili blades for wall sawing applications which will be launched onto the market.

www.leilitools.com



## GSSI showcases latest GPR technology at World of Concrete

GSSI, the manufacturer of ground penetrating radar (GPR) equipment, highlighted its latest GPR technology at the 2019 World of Concrete conference from 21-25 January 2019 in Las Vegas. On display at the company's booth was the StructureScan Mini XT concrete inspection GPR system, the Palm XT miniaturised GPR antenna for the StructureScan Mini XT, and the UtilityScan GPR System.

StructureScan Mini XT is the newest generation of GSSI's all in one concrete inspection GPR system. Rugged, compact, and flexible, Mini XT is ideal for



locating rebar, conduits, post tension cables, and voids. The Mini XT can help identify structural elements, including pan decking and concrete cover, and can also provide real time determination of concrete slab thickness. It features an intuitive touchscreen interface and six button control options.

The Palm XT Antenna was also shown, this being a miniaturised GPR antenna designed to greatly enhance the capabilities of the StructureScan Mini XT. The handheld Palm XT antenna turns a basic Mini XT into an advanced system by giving users unparalleled access in tightly spaced areas and enabling overhead scanning. Also, on display was the UtilityScan GPR system, a compact unit that makes it extremely portable and easy to manoeuvre in tight survey areas.

UtilityScan features a robust new wireless antenna that can handle required data rates, and is ruggedly built to withstand challenging field conditions. The electrical design uses GSSI's patented HyperStacking technology, which has proven to increase depth penetration in challenging soils, while also providing high near-surface data resolution. The unit also has a backup ethernet connection if Wi-Fi is not desired, or allowed on a particular jobsite or facility. UtilityScan can also be equipped with the LineTrac accessory, which helps locate specific power sources situated underground, including AC power and induced RF energy present in conduits.



Between 5 and 7 September 2019, the recycling and civil engineering sector will come together at the Karlsruhe Trade Fair Centre, which will host for the second time the RecyclingAKTIV and TiefbauLIVE trade shows.

Special theme areas make up the main focus of the RecyclingAKTIV and TiefbauLIVE trade shows. These comprise of 'mobile scrap and metal yard', 'wood and biomass', 'demonstration building sites for road and path construction', and 'canal works'. In all four areas, exhibitors will be able to demonstrate machinery and equipment, with one factor linking the trade fair pairing being construction waste recycling, with exhibitors such as Moerschen and Kölsch providing live demonstrations at their respective stands.

Claus Faber, site manager at Scholz Recycling GmbH, is very enthusiastic about the demonstrations: "Of all the demonstration trade fairs, I am particularly taken with the quality of the live demonstrations in Karlsruhe, where the machines are shown working in sequence in real life operating situations. We came to RecyclingAKTIV 2017 intending to purchase a screen unit, and encountered a surprising number of manufacturers there. As our work involves screening scrap metal, we compared machines above all based on their construction and robustness. In the end, we decided to go for Komptech's Cribus 2800 drum screen."

The 200+ exhibitors at the shows not only have the option of demonstrating their products in the special theme areas but also on their own stands'. Owing to the great demand for space, the trade fair organisers have increased the open air exhibition area by some 10,000m2. Amongst the companies exhibiting are Arjes, Doppstadt, Wacker Neuson and Kemroc who will all be putting their machines and other equipment through their paces. Other exhibitors include Zeppelin (with Cat), Bobcat (with Doosan) and Sany, and making their debut at TiefbauLIVE includes construction machinery manufacturer Liebherr and Swedish company Epiroc.

Also present are equipment dealers such as BML, Kiesel (with Hitachi and Fuchs), Ludwig, Schwab and, for the very first time, Cramo - one of Europe's leading construction equipment rental companies. Trade fair project manager Claudia Nötzelmann stresses the importance of attracting such international exhibitors: "It is already clear that, on the exhibitor front, our demonstration trade fairs will be every bit as international as they were in 2017. Given that the bauma construction machinery trade fair is also being held this year, this is a very successful result for us."

#### **Exhibitors from many countries**

As well as Austrian crushing and shredding specialists Komptech, other international producers of recycling equipment are exhibiting at the trade fair. Ecostar from Italy will be showcasing its shredding and screening machines, while Austrian producer Xava specialises in compact screening technology. Polish company ZM Precyzja will be demonstrating shredders for paper and board packaging along with crushers for wood

As well as this, new exhibitors include eSaver, Oleoweb and Proemion, which will be presenting their testing, measuring, analysis and control technology in the trade fair hall right next to the open air exhibition area. Other hall exhibitors include Losberger (site trailers and hall construction solutions), Riedlberger (road construction and machine technology), Vp Groundforce (shoring systems rental) and Metso (scrap shears).



# New Ronda1800H power to be unveiled at bauma 2019

At bauma in April, the Danish manufacturer of Ronda industrial vacuum cleaners, V. Brøndum A/S, will unveil its Ronda 1800H power at its stand A1-114. This being a newly developed heavy duty H-class vacuum cleaner for concrete and other fine materials. The new machine is suitable for use as both an ordinary vacuum cleaner for cleaning of construction sites, as well as use as a dust extractor in connection with hand tools for cutting and grinding of concrete.

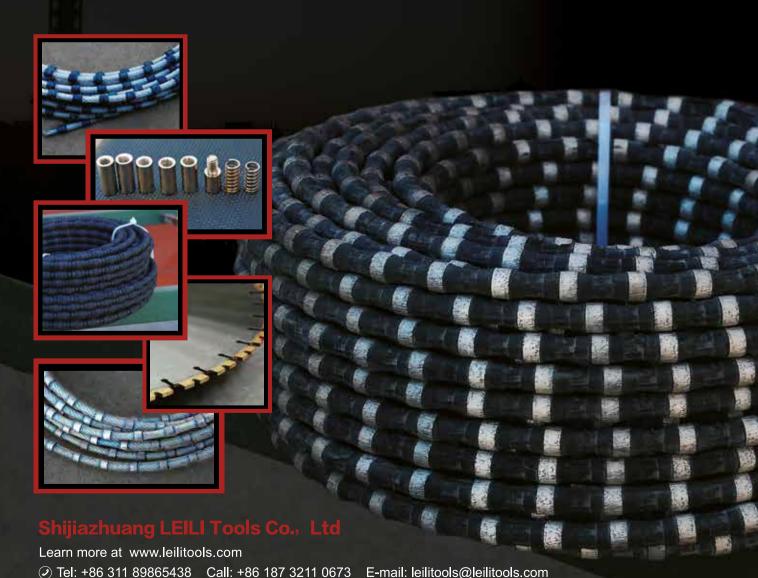
The Ronda 1800H power uses the same motor head as the 200H power having many of the same features. In addition, the new 1800H power comes with a very large partly self-cleaning Teflon coated multi tube filter, with the machine being partly made of conductive materials to ensure discharge of static electricity. In order to deal with the tricky problem of emptying the machine - especially when working with dust - the 1800H power is available with either longopac or with a large metal container releasable with a handle. The strong metal frame protecting the 1800H power together with the large wheels make the machine easy to handle and transport.

In addition to the 1800H, the Ronda CF 502P and CF 502A heavy duty cyclone pre-separators will be exhibited. These are equipped with metal cyclones suitable for the construction industry, being designed to separates 98-99% of vacuumed material. This makes them suitable for vacuuming large quantities of very fine dust as using a pre-separator protects the filter system of the vacuum cleaner from overload. The preseparator is available in two versions: Ronda CF-502P and CF-502A. The standard version Ronda CF-502P is equipped with a plastic container, whereas the CF-502A is equipped with a metal container to prevent static electricity. Both models offer 50l of capacity and the option of collecting the dust directly in the container or in a strong plastic bag.



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### **Mainline Demolition joins EDA**

The European Demolition Association has increased its membership with the addition of a new company: Mainline Demolition.

Mainline Demolition is a specialist demolition contractor, operating as a family owned company since 1982, providing innovative services to the construction, energy, oil and Gas, industrial and resources sectors. Founded by Robert Moltoni, Mainline Demolition and associated companies have a wealth of experience in Australia and internationally, completing hundreds of projects throughout the country, Malaysia and the USA. The European Demolition Association, EDA, was founded in 1978 and is the European platform for national demolition associations, demolition contractors and suppliers. As such it welcomes Mainland Demolition to the association.

#### **EDA welcomes Kobelco Europe**

Kobelco Construction Machinery Europe is wholly owned by Kobelco Construction Machinery Co., Ltd. (Japan) with headquarters located in Almere (The Netherlands), and has recently announced its membership of the EDA (European Demolition Association).

The Japanese manufacturer is dedicated to sales and service of 1t-50t crawler excavators, and spare parts throughout Europe, Russia, CIS and Maghreb, being well known worldwide as a leading excavator specialist. Its excavators have advanced technology and features include high levels of fuel efficiency, an integrated noise and dust reduction cooling system, and advanced hydraulics for powerful, high performance.

The company's all new generation 10 machines possess low emissions, reduced operational costs and increased working performance being testament to Kobelco's eight decades of experience and expertise. Focusing on the needs of users in the field, the company dedicates itself to satisfying customers by supplying them with products, services, and information that have true value, while contributing to the creation of a prosperous society.

#### The best in concrete renovation honoured at WOC ceremony

The most innovative and challenging proiects completed by CSDA contractors in 2018 were recognised during a prestigious World of Concrete ceremony in Las Vegas. On Wednesday, 23 January 2019, the association hosted the sixth annual Concrete Openings Awards at its booth in the Central Hall of the Las Vegas Convention Centre. CSDA executive director Patrick O'Brien acted as master of ceremonies while the association's vice president, Matthew Finnigan, presented the awards to the winners. World of Concrete attendees and members of the industry media joined CSDA to celebrate with the winning contractors.

The winners of the awards were Atlantic Concrete Cutting (Mount Holly, NJ), for the Tappan Zee bridge demolition project in the 'roads, bridges and airports' category. In the 'building and construction' category, Donley Concrete Cutting Company (Pickerington, OH), received the award for its work on a historic church renovation and reinforcement project. Cuts. Inc. (Knoxville, TN) won the 'industrial renovation' award for a custom fabricated table created to assist with a university research project, and Cutting Edge Services (Batavia, OH), along with Advanced Concrete Sawing (St. Paul, MN) won the 'infrastructure renovation' award, for the Red Rock Hydroelectric Dam Project

The inaugural Concrete Openings Awards ceremony was held in 2014 to showcase the best projects covered in CSDA's official magazine, and recognise the contractors who performed the work. 16 job stories are split into four categories and put before a panel of judges. The panel scores each job on its pre-planning, use of innovation, degree of difficulty and quality requirements. Details and images of the winning projects are displayed during the awards ceremony and for the remainder of the exhibition.

"It is a privilege to participate in the judging of the Concrete Openings Awards. I am still fascinated by the ingenuity and commitment of my fellow CSDA contractors. I find that I place myself alongside them when evaluating their projects. Although quality is a prime factor in a successful project, I enjoyed exploring the innovations, planning and complexity of the projects that were presented this year. CSDA contractors continue to set the bar higher and higher with their commitment to their clients," said Ted Johnston, CSDA past president and member of the judging panel.

The Concrete Sawing & Drilling Association is a non-profit trade association of contractors, manufacturers and affiliated members from the construction and renovation industry. Diamond tools for projects requiring sawing, drilling, selective demolition, cutting and polishing offering the construction industry many benefits including lower total project costs, precision cutting, maintenance of structural integrity, reduced downtime, reduced noise, dust and debris, limited access cutting and the ability to cut heavily reinforced concrete. Founded in 1972, CSDA has 500 member companies

#### IACDS Diamond Award winners to be announced at bauma 2019

Quite an impressive number of companies have submitted applications for the 2019 IACDS Diamond Awards. This time there are two different categories. Job Submission and Product Submissions. Below is the short list of the companies who have entered the awards, with more detailed information being available on the IACDS website.

#### **Job Submissions**

West Coast Cutting & Coring Group: a company located in Vancouver Island and Prince George, has 60 employees, 50 trucks and offers the services of slab sawing, core drilling, wall sawing, wire sawing and selective demolition. The company presents a job carried out in Mission (Canada).

Robocore Cuts Ltd: a diamond drilling, concrete cutting specialist and controlled demolition contractor from the UK, presents a job carried out at Dunkirk Jetty in Dover (UK).

Nippon Concrete Cutting Co.: a specialist in the diamond wire saw cutting field that presents a job carried out in Kawasaki (Japan).

Concrete Coring Company: a specialist company in the support business of concrete removal and water jetting, whose job was carried out in Osaka (Japan).

Seliger GmbH: is known for reliability, accuracy and cleanliness in providing a wide variety of different techniques in the concrete cutting and drilling business. The company presents a job carried out in Neubrandenburg (Germany).

Dianmantbohr: whose job was carried out in Muttenz (Switzerland).

Daiichi Cutter: is focused on flat sawing, core drilling, wall sawing, wire sawing, grooving, bursting, grinding and hydro demolition, whose job was carried out in Nikko (Japan).

Cut Inc.: provides sawing, drilling, grinding, robotic demolition, excavation, removal, nuclear work and fabrication of custom saw and drill attachments, and whose job was carried out in Knoxville (USA).

Atlantic Concrete Cutting Inc.: offers services of kerb sawing, wall sawing, slab sawing, wire sawing, core drilling, joint widening and sealing. Its job was carried out in Tarrytown (USA).

CA Drillers Ltd: a diamond drilling and sawing contractor that has been trading since 1981. The company presents a job carried out in London (UK).

Re-Corta: is dedicated to technical demolition works, with over 25 years of experience in the field, offering innovative, safe and timely solutions to a diverse range of clients in sectors such as building (deconstruction), heavy industries and renewable energies. The company presents a job carried out in Mers El Kébir Military Base (Algeria).

Cutting Edge: a company that focuses on diamond wire sawing of large concrete and metal structures, predominately in the hydro and nuclear markets. Its job submission was carried out in Iowa (USA).

Diamond Drilling: established in Australia in 1973, it mainly provides rendering services for controlled demolition, cutting and breaking concrete. The job was carried out in Prahova County, Ploiesti City (Romania).

Perfocort: part of the Dekkak Group along with Casa Crane, the company was created in January 2011, presents a job carried out in Casablanca (Morocco).

#### **Product Submissions**

Braun: consists of three divisions: steel cutting and grinding machines, hydraulic steel structures and rake cleaning systems, decommissioning and dismantling technologies.

Cuts Inc.: a CSDA member since 2012, offers the following services: sawing, drilling, grinding, robotic demolition, excavation, removal, nuclear work and fabrication of custom saw and drill attachments.

FBS and VDMA: works in conjunction with national drilling and sawing associations in Europe and presents its product that was presented at BeBoSa 2017 in Germany.

Thayr: offers a range of precision equipment, including drilling and cutting equipment, road and floor saws, diamond wire and disk cutters and remote controlled Brokk demolition robots. Their product submission was launched in January 2018 in Spain.

Vacuworx: founded in 1999 in Tulsa (Oklahoma, USA), the company engineers and manufactures innovative heavy duty material handling equipment for the oil and gas, water and sewer, highway and heavy construction, concrete construction, landscaping and manufacturing industries worldwide.

SMK Sprayer: provides leading edge portable sprayer products and develops engineered solutions to meet even the most demanding of customer requirements. The product that applies for the award was launched during February 2018.

Hilti: the company develops and manufactures products, systems, software and services that provide the construction and energy sectors with clear added value.

Tyrolit: is one of the leading manufacturers of grinding and dressing tools, as well as a system provider in the construction industry, whose product was launched in 2018 in western and eastern Furone

Both awards are now closed for submissions as the deadlines for both categories were 31 January 2019. During February 2019, judges evaluated the submissions in order to choose the winners that will be formally announced on Thursday 11 April, 2019, at bauma 2019, at an event that will be held in Room B11, pavilion B1 at the Munich Exhibition Centre at 16.00hrs. There will also be a special networking event held in conjunction with the awards ceremony.

www.iacds.org

#### Brokk new member of the IACDS

Irene Cámara of the IACDS Secretariat of the International Association of Concrete Drillers and Sawers has announced that the manufacturer of demolition and associated industries robots

Brokk, as the latest member of the association. The Swedish company will provide cutting edge technological know-how and experience of the robotics market in construction.



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