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Professional Demolition International Magazine

Address: P.O. Box 786.

Visitors address:

ISSN 1650-979X ISSN Registration:

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Words from the IACDS President

Continued restrictions but now I can see a light in the tunnel

Dear friends of the swinging saw blade and the rotating drill bit, we are now in the second year of the coronavirus outbreak and unfortunately Covid-19 is still with us. As with before, it now seems more or less constantly that we are strongly restricted in our daily lives, and these restrictions will probably be our companion for a while yet. But I don't want to talk about that here and now.

It is March, and spring is coming onwards making great strides. As with every year, the order situation will pick up again just as the snow is receding. The construction industry is still one of the main pillars of the global economy and GDP. That will not change anytime soon, even if industry and public clients will be a little more hesitant when placing orders in the coming months. But that is quite understandable in view of the current situation and the high levels of new public debt. However, in view of developments on the international stock exchanges, I don't see any dark clouds on the horizon. Just a small rain cloud at the most, but that should be quite useful.

That is why I look positively into the future and look forward to the time when we can

Michael Findeis, President of IACDS

travel without restrictions again; when we can have a social life again; when I can meet you again in person, and we can maintain normal relationships and exchanges.

Unfortunately, all trade fairs and annual general meetings have been cancelled for the coming spring, but maybe I'll see you at the World of Concrete in Las Vegas in June, or Demcon in Stockholm or BeBoSa in Willingen. The latter two events are set to take place in September this year.

I am however pleased to be able to present our new webinars to you here. Since February we have been offering a webinar on a current topic every month as part of our Academy. Take a look at www.IACDS.org and be surprised.

I look forward to meeting with you at one or other of the events. Until then, I wish you a Happy Easter and stay healthy.

Demolition New Orleans cancelled

The NDA has been closely following the news regarding Covid-19. Although there are promising developments being reported by the US Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO), there is still uncertainty around in person events during 2021. Earlier this month, the Louisiana governor, John Bel Edwards, extended his modified Phase 2 order, keeping Covid-19 mitigation measures in place for another 28 days, and strongly recommending against large gatherings. Due to this uncertainty, as well as health conerns, the NDA board voted unanimously to cancel Demolition New Orleans.

The timing of the announcement will come as a disappointment to many and the cancelling of the event is made with regrets, but the decision is made in the best interest of all attendees, exhibitors, and volunteers. The vaccine roll out and improvements in rapid

testing programmes gives great confidence for the prospects of the industry, and the organisers are confident of delivering a successful Demolition Convention and Expo in San Diego, California, 26 February to 1 March 2022.

The NDA however is exploring virtual opportunities to celebrate those who have reached great milestones in their careers and innovative project work within the last year. Details will be shared about upcoming education sessions and the presentation of the 2021 awards as they become available. The NDA would like to thank the convention committee, and in particular, Scott Laird and Scot Stein for their amazing work in planning this year's event. Their leadership during this trying time has been appreciated by the NDA staff team and fellow volunteers. The NDA apologises for any inconvenience this cancelation may have caused and wishes to thank all for patience and understanding.

Priestly Demolition announced as new member of EDA

With over 25 years of industry experience, Priestly Demolition Inc. is one of the largest, and best known, demolition contractors in Canada, being a trusted partner of many international companies and government agencies across North America and further afield. The company has offices in both Canada and the US, with plans to expand even further.

Over the past few years the company has made large investments in its team, new technology, in house engineering capabilities, a health and safety department and COR Certification. The company has the expertise and in house resources to handle complex projects, while providing the personalised service of a family owned and operated organisation. Its highly trained team of professionals, along with a top of the line fleet of equipment, is aimed to deliver a better future for all. The company can now dive deeper into the logistics of a project, helping to ensure that its clients are getting the best possible results.

With real time production values and cross platform technology, Priestly Demolition Inc. can stay on target, improve efficiency, and adjust as needed. The company can identify sustainable opportunities to reduce the carbon footprint and help its clients with their long term financial goals. Larger scale projects can take the Priestly team many months to plan, however, careful consideration reduces the financial risk for clients, and ensures key measures are in place before the initial phase of the plan is rolled out.



C&D World to proceed from 21 to 23 March 2021

Responding to the wishes of its membership and board of directors, the C&D Recycling Association will go forward with its annual meeting and C&D World 2021, to be held from the 21 to 23 March in Austin, Texas, albeit by following and even going beyond all recommended CDC guidelines. To accommodate those attendees not quite ready to travel, a virtual option will be offered streaming the event's educational sessions.

C&D World has long been known as the gathering place for the construction and demolition industry due to its excellent networking opportunities. That will still happen, but for 2021 the exhibit hall will be spread out and any adjacent booths will not face each other. The separate single room used for sessions is large, allowing for maximum distance between participants. Throughout it

all sanitary measures will include numerous hand cleansing stations, food and beverage dispensed in individual containers, and electrostatic germ cleaning equipment.

These added actions will in no way distract from the quality of the programme, or the ability to see the latest goods and services available to the industry in the exhibit hall. An economic forecast in the time of Covid-19 is planned, as well as end markets discussions, working to get government grants, and other useful sessions

Registration to C&D World is now open, and there are still spots available in the exhibit hall, as well as sponsorship opportunities. For information on those, or anything else connected with C&D World 2021, please contact William Turley at: turley@cdrecycling.org; 630-258-9047.

Two Italian demolition associations merge

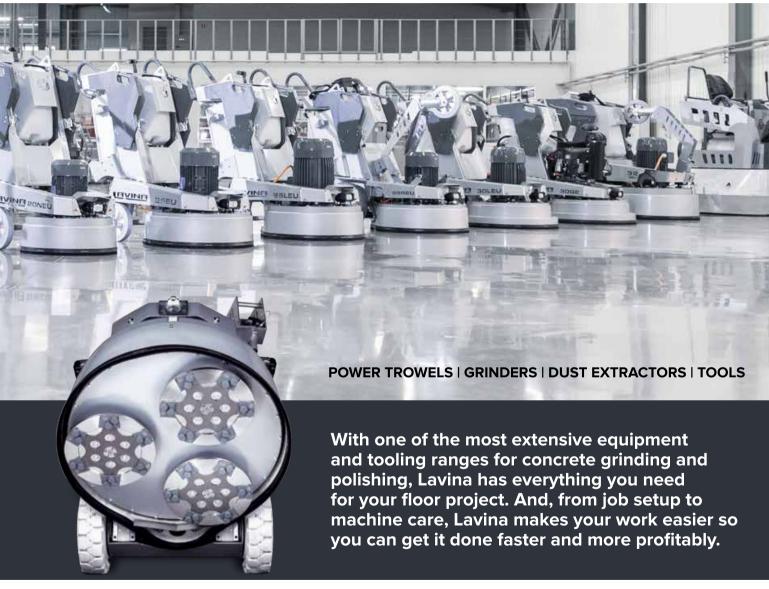
NADECO, the National Association for Demolition and Circular Economy in Construction, is the name of the new association created after the successful merger of the Italian Association for Demolition and the Italian Association for Controlled Demolition. The new association consists of six member categories — decontamination, demolition, diamond concrete sawing, engineering offices, inert waste treatment and scrap iron treatment — with the aim of creating working groups made up of companies and institutions in construction and demolition. NADECO says the groups

will focus on the central theme of the green economy and that the organisation itself will work to make industry professionalism, attention to environmental issues and respect for work ethics universally recognised. It also added that the new organisation will, 'actively respond to the problems of a constantly evolving sector'. The organisation's new board of directors has appointed Giuseppe Panseri of specialist demolition firm Despe as its president and Diego Tedoldi of construction and controlled demolition company Tecnotagli as its vice president.





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Curium new member of the European Demolition Association

Curium is a French company founded in 1994 that provides services to help ensure the sound management of hazardous products and waste. To this end the company offers a wide range of services for projects involving chemical, radiological and biological risks. Its team of highly qualified chemical engineers develops solutions for the management of hazardous substances, from technical studies to in situ works and large scale project

management. Curium's expertise includes contamination assessment and decontamination operations prior to the dismantling and demolition of facilities and processes that used toxic, corrosive, flammable, explosive, radioactive or infectious substances.



WELCOME BACK TO LIFE!

I hope all of you have had a good rest over Christmas and New Year. We are now well into 2021, but the situation has maybe not changed that much from December last year, although I can sense a little bit of optimism in the air this year compared to last year.

Yet, many nations around the world are struggling with the threat of a third wave (of the coronavirus) with some already experiencing its effects. The mutated variants of the virus from the United Kingdom, Brazil and South Africa, have entered many countries and it is a race against the clock to vaccinate as many as possible before these Corona-19 variants have too great an impact spreading the infection. The vaccination work looks very different from country to country. In my home country, Sweden, very few people has been vaccinated so far, mainly people in high risk groups and healthcare personnel. I doubt I will have my first

Besides all this, as I said, I can sense optimism among both manufacturers and contractors in the industries we cover in PDi. Even though there have been serious cutbacks on many new projects that were planned to start during 2020, and now in 2021, many projects are up and running even though at a slower pace. There is also a lot of anticipation in the air as everybody now wants to get back in business and see the wheels start rolling again after months of a sort of limbo. However, many are still prevented from traveling in the same way as they were before the pandemic. But a good yardstick concerning the situation are the many posts on social media about demolition, concrete cutting, recycling and concrete floor grinding projects that actually are carried out despite the pandemic. Most contractors are keeping up the good work even though it has to be in accordance with the different regulations in each country.

Suppliers continue to release new products and tools, and this issue of PDi is a good example. Personal visits to clients are still very restricted, so most contacts are still made over phone, email and via digital meetings using Teams, Zoom, etc. I think all of us are really waiting for when we can meet in person again at a trade show, conference or just visit a client. However, at least the first six months of 2021 will be very limited regarding trade shows. Many shows that were planned have been postponed. According to the information I have received, the German trade show BeBoSa has been postponed again, but now planned for September this year.

> The big question is if World of Concrete will take place in June this year.

> This issue contains a lot of interesting material to read. We are running our annual feature on new fully automatic quick couplings, a crushing and screening bucket feature, a feature on new core drilling equipment and our feature on new handheld machines to mention a few of the stories. Enjoy!

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



TABE Hammers was founded in 1968 and brings several decades of experience in the construction, demolition, recycling, mining, forestry and agricultural industries to the EDA. The company designs, manufactures and markets technologically recognised, robust and durable products, compatible with all excavators on the market. These include quick couplers, articulated arms. crusher and screener buckets, cleaning and excavation buckets, demolition equipment, shears, handling grapples, hydraulic crushers and crushing and screening plants. These are marketed domestically (in Spain) as well as throughout Europe, America, Africa, the Middle East and Asia.



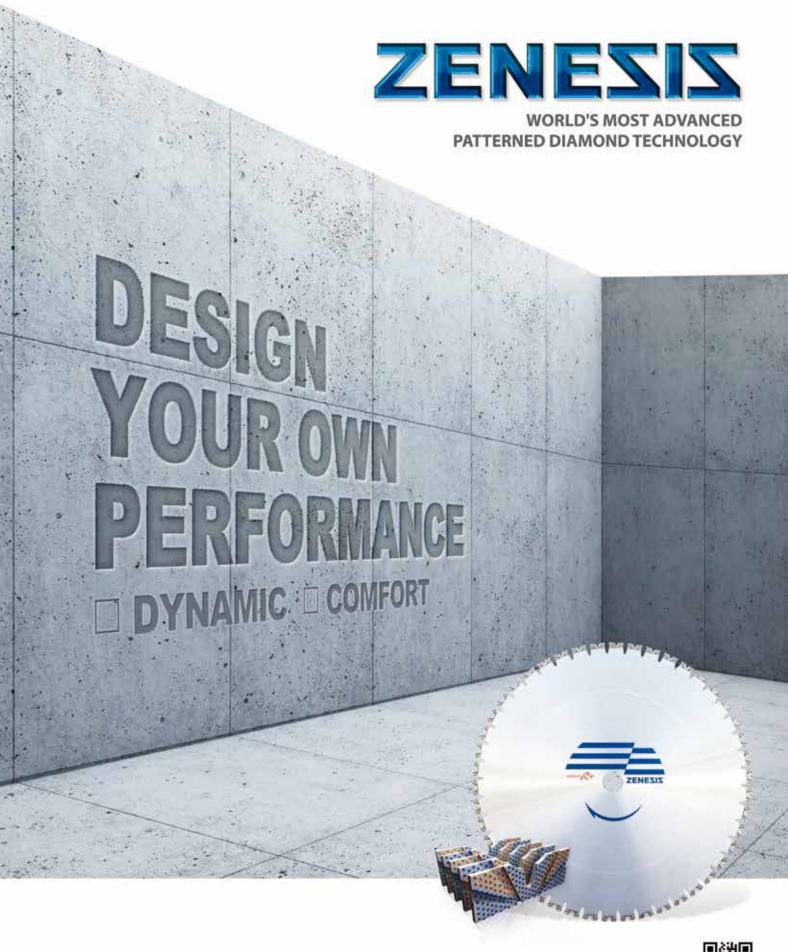


Doosan Bobcat EMEA has appointed Wihuri Oy Technical Trade as its new exclusive Bobcat dealer for Finland

Wihuri Oy Technical Trade is one of the four divisions of Wihuri Group, which is ranked among the top 50 companies in Finland, with its Technical Trade division being a leading provider of municipal machinery and tools for the management and maintenance of urban environments. The Wihuri Group operates in three other main industries, namely the packaging industry, grocery wholesale and air transport. Expanding from its strong roots in Finland, the Wihuri Group is also an international conglomerate, with revenues of approximately €2B in 2019, employing approximately 5,400 staff in 30 countries. Johan Bursell, district sales manager for Bobcat, said of the appointment: "Partnering with Wihuri is an exciting opportunity for Bobcat to gain the focus from a partner with strong growth ambitions and a solid foundation in providing top class customer service in the Finnish construction and agriculture markets."

As well as sales and service of the entire Bobcat range, Wihuri Oy Technical Trade will be offering a full selection of genuine Bobcat accessories and parts to support both new and existing Bobcat customers in Finland. Jonne Honkanen, vice president and general manager of Wihuri Oy Technical Trade, commented: "Wihuri Oy Technical Trade has a long tradition in the construction equipment business. We are expanding our dedicated sales organisation for Bobcat, with which we can quarantee our customers a first class service experience. On the maintenance side, we offer a nationwide aftermarket network second to none. We are creating a comprehensive stock of genuine Bobcat spare parts at our Vantaa central warehouse, ensuring excellent availability of spare parts, with fast deliveries to our customers throughout Finland."









Words from the EDA President

2021 starts with two launches

We at the European Demolition Asso- use of attachments and carriers used for ciation (EDA) continue with our work, beginning 2021 with more desire than and experiences and, in short, to generate course, personally.

A sample of the constant work carimportance for our sector and are titled: by the release of a third publication, the the works: 'The guide about couplers for

In terms of objectives, these guides aim to give a general overview of demolition carriers and demolition attachments, explaining their basic characteristics, their functionalities, general requirements, how to use them safely in working condiis applicable. The origin of these guides, which have been developed through two working groups created by the EDA, lies in the last two 'Think Tanks' that were organised jointly by EDA and the Committee for European Construction Equipment, in 2018 and 2019. There it became clear that there is a need to discuss and work together to develop basic guidelines related to standardisation and provide recommendations for the safe

demolition and recycling applications.

It is for this reason, and taking into nal criteria of each manufacturer that saw the EDA decide to take the initiative and create these informative guides. The goal was to solve any doubts that may arise for and recycling go hand in hand. With these publications, which are intended to serve as a reference document for professionals in the sector, we are starting 2021 in which we will once again work on a study of the industry, publish our

About EDA

info@europeandemolition.org www.europeandemolition.org



Francisco Cobo, President of EDA, **European Demolition Association**



PDi business



Kobelco strengthens dealer network in Europe

While 2020 has been no ordinary year, Kobelco Construction Machinery Europe B.V. (KCME) has worked hard to continue pursuing opportunities for growth in key European markets. With this in mind, the Japanese manufacturer is pleased to announce its expansion of operations in Italy, including the addition of a new dealer, EMAC, and the expansion of existing dealers into new regions. KCME considers Italy to be one of the most important markets for excavators alongside Germany, France and the UK. With a focus on high performance and productive machinery with low fuel consumption, Kobelco excavators are in high demand, with the demand for heavy machines, including demolition equipment, expected to grow.



Doosan makes changes to French dealer network

Doosan Infracore Europe has made important changes to the company's dealer network in France with the appointment of Somatec MTPI and Sofemat as its new dealers in the east and west of France respectively. With these changes, the Doosan dealer network in France now includes 21 independent dealers covering all of the country and its overseas territories.

Doosan reported market share gains across all segments in France in 2020, so the strengthening of the French dealer network in 2021 is intended to maintain this momentum and meet the many expectations of Doosan's current and future customers in the construction and public works sectors. The two new dealerships in France will offer customers the entire Doosan range, both the compact and heavy line ranges, including wheel loaders, articulated dump trucks and mini, crawler and wheeled excavators, as well as all attachments, accessories and spare parts available from Doosan.

Doosan will strengthen its position in the

east through Somatec MTPI, a member of the Somatec group, a specialist in the sale, rental and repair of equipment for the agricultural, construction and industrial markets. With a team of more than 135 employees, including 35 mobile engineers. Somatec has eight branches. It is now the exclusive Doosan distributor for the following departments: Meuse (55), Meurthe & Moselle (54), Moselle (57), Haut-Rhin (68) and Bas-Rhin (67), Haute-Saone (70) and the Vosges (88).

Sofemat is a subsidiary of the TPM Group, a company specialising in the distribution, service, repair and rental of construction, handling and recycling equipment. The company is recognised for its expertise among professionals in heavy equipment and the know-how of its teams operating from nine branches. Sofemat is now Doosan's exclusive distributor in the following departments: Côte d'Armor (22), Finistère (29), Ile et Vilaine (35), Mayenne (53), Morbihan (56) and Sarthe (72).

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EVENTS

CSDA ANNUAL CANCELLED **CONVENTION & TECH FAIR**

March, 4-6, 2021 Fairmont Hamilton Proncess Resort, Hamilton, Bermuda

www.csda.org

NDA ANNUAL CONVENTION 2021

March, 4-7, 2021 New Orleans, Louisiana

Demolitionassociation.com

BAUMA CONEXPO INDIA

CANCELLED April 20-23, 2021 Gurugram, New Delhi,

www.bcindia.com

WORLD OF CONCRETE 2021

June 8-10 2021 Las Vegas Convention Center Las Vegas, USA

www.worldofconcrete.com

CONCRETE SHOW BRAZIL 2021

August 31 to September 2, 2021 São Paulo Expo, São Paul, Brazil www.concreteshow.com.br

DEMCON 2021

September, 9-10, 2021 InfraCity, Stockholm, Sweden

www.demcon.se

BEBOSA 2021

21-23 September, 2021 Willingen, Hochsauerland, Germany

www.bebosa.com

THE ARA SHOW 2021

October 18-20, 2021 New Orleans, Louisiana

www.arashow.ora

ECOMONDO 2021

26-29 oktober, 2021 Rimini,

www.ecomondo.it

FACHTAGUNG ABBRUCH 2022

March, 11, 2022 Berlin, Germany

www.deutscher-abbruchverband.de

BAUMA 2022

4-10 April, 2022 <u>Messe Mü</u>nchen, München, Germany

www.bauma.de

HILLHEAD

Hillhead Quarry, Buxton, Derbyshire,

www.hillhead.com

SAMOTER 2023

March, 2023 Verona, Italy

www.samoter.it

Doosan sets new records in China

26 years after entering the Chinese market, Doosan's annual sales and quarterly sales revenues grew by 21% and 55%, respectively, surpassing the 200,000 mark in the cumulative production of excavators in China. To mark its momentous achievement, Doosan Infracore China invited employees, dealers and customers to its Yantai plant and to attend a ceremony to celebrate the production of its 200,000th excavator in China. The event, which was broadcast live online. featured the handover of the 200,000th excavator to its customer.

Doosan Infracore has steadily strengthened its market position in the Chinese market for excavators manufactured, increasing its market share from 12.9% in 2015 to 22.8% in the third quarter of 2020. The Chinese excavator market recorded its largest ever annual figure of 200,000 units in 2019. However, it contracted for about two months in the aftermath of the Covid-19 crisis at the beginning of 2020, but has recorded rapid recovery since March.

In line with the growth of the Chinese excavator market, Doosan Infracore continues to release new products and special equipment customised to the requirements of Chinese clients. This saw the company launching a new 6t wheeled excavator in July 2020, as well as an enhanced equipment inspection service campaign. It has also conducted online service training for a total of 7,300 agents based at its dealerships across the country.





WLP Systems presents its new 'Demolitor' 70 cannon and other solutions

The water pump on the new Demolitor cannon is submersible and integrated into the chassis, which, according to WLP, guarantees high efficiency and smooth functioning at 2.2kW. The new fan designed with side 'TIPS' and a new flow aligning system, provide up to 60m of jet with 11kW of installed power. The swing is freely programmable covering an arc of 340° and thanks to the release handle. can be rotated manually. The machine is equipped with one main solenoid valve with an integrated filter, which, according to WLP, is easy to maintain and ensures that the cannon can also be used independently from a water supply through a water tank, without an additional supply pump. As with all WLP appliances, the D70 is equipped with a radio

control for operating from a safe distance. The D70 is also available in an approved road version

In view of the ongoing sanitary requirements due to the coronavirus, WLP has used its know how to design and produce sanitation machines. This led to the creation of a complete line of cannons called 'Sanitank 70' and 'Sanitank 300'. These both draw on the company's expertise regarding the management of high pressure water and D50BP NCA, using the Demolitor cannons as a base frame. WLP also has introduced the new 'Sanigate', a portal to be placed at the entrance of commercial activities, offices, sport centres, hospitals, etc., which, according to WLP, provides complete personal sanitation.

Dynaset marks 35 years of hydraulics

Dynaset is this year celebrating 35 years in business, with PDi magazine wishing to offer its congratulations in reaching this milestone. The company's vision and plans are shared by Dynaset executive

vice president Anni Karppinen and can be viewed at: https://dynaset.com/outlookfor-the-year-2021-and-a-revolutionaryreveal/?link_id=Vrkg9CeCVpvn6i.

www.dynaset.com



Covid-19 leads to decline in Hilti sales

The effects of the coronavirus pandemic remain visible to the Hilti Group, Despite signs of a recovery, Hilti's 2020 sales of €4.9B were 9.6% below the level of the previous vear. In local currencies the decline amounted to 4.3%

"The signs of recovery further solidified over the last four months of 2020 and our sales figures have stabilised. Total sales are below the previous year's level, to the extent expected, which means that the downturn has been less severe than initially feared," commented CEO Christoph Loos on the past financial year. The appreciation of the Swiss franc against virtually all currencies continued, especially against currencies in the emerging markets and against the US dollar. Overall, the negative currency effect on sales amounted to more than 5%.

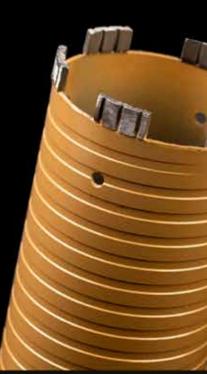
Developments in the regions varied greatly, strongly influenced by the duration and extent of local lockdowns. In local currencies this resulted in only a slight overall decline in sales of 2.7% in Europe. There was a clear north-south divide, with growth in Scandinavia and Central Europe and upper single digit declines in Southern Europe. North America was also pleasingly robust, with a local decrease of only 4.3%. Significant reductions were recorded in the Eastern Europe / Middle East / Africa region (-8.2%), Latin America (-8.1%) and Asia/Pacific (-7.0%), with major differences from country to country. For example, while encouraging growth was achieved in China and Russia, there was a larger slump in Southeast Asia and the Gulf States in particular.

The Hilti Group expects a moderate economic recovery for the current year which will vary from region to region, and depend heavily on the course of the coronavirus pandemic in the coming months.



















Tractive has released its new generation of Pentruder products. In this article you can read about all the benefits and the organisation behind the new Pentruder RS2 wall saw and the Pentpak 3 power pack.

n 1 March this year, the manufacturer Tractive, who is behind the Pentruder brand, launched new and revolutionary equipment, being just the beginning of a completely new generation of products.

Pentruder's unconventional product solutions

Business people who know and use Pentruder's concrete cutting equipment will already know that Tractive's generational change began to take shape at bauma 2019, if not before. "It has taken time and we may have sticked out our chin and pulled it in again, a little back and forth. But for us, product development is not a self-fulfilling prophecy. Product development for us is to create efficient systems for concrete cutting entirely for the user's sake. Our products should be machines that are simple and logical to work with; they should be more efficient and last a long time. If we are not completely satisfied, we have no problem going back to the drawing table. Our customers are worth the very best," says Marie Peil, marketing director, Tractive AB.

Since its inception, Pentruder's products have differed from other brands on the market. They are unconventional in their solutions and manage to keep their distance from competitors, both in execution and performance. It all started when the founder of the company and the product designer, Anders Johnsen, was asked by a rally car driving concrete cutter in 1977

in Borlänge, Sweden, if he could design a gearbox for a drilling system. Anders was already known at the time for developing gearboxes for rallying cars. Developing a gearbox for a concrete drilling system worked out perfectly, with the rest being history, so to speak.



At the start of the 80's, Anders and his wife Ingrid began to develop and manufacture a range of machinery and equipment for concrete drilling. This was subsequently acquired by a multinational manufacturer at the beginning of the 1990s. Following this, Tractive AB was founded shortly afterwards, but with a focus on gearboxes for rallying and racing. However, after some years ideas for a new concrete cutting product developed. In order to meet market demand and to manufacture the developments, Pentruder was created, and in 1997 the first Pentruder wall saw was launched. Gearboxes for rally cars were then still manufactured, but over the years the development and manufacture of concrete cutting equipment has taken over as the major area of operations. For a long time, gearbox production for rally and racing cars has accounted for 10% of company turnover, with the rest coming from concrete cutting equipment. "Gearboxes for the rally sport, however, are going a bit in waves and may well increase again," says Marie's twin sister Jenny Muda, who is CFO of the company.

Investment in 'HF' technology

Throughout the 1990s, the hydraulic drive dominated Pentruder's development in conjunction with the company's unique gearbox transmission solution in order to get as much power as possible on the spindle. But well into the 2000s, as is well known, a revolution happened when high frequency/high cycle (HF) driven technology





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was introduced on machines for the concrete cutting industry. The technology was not new, but thanks to the development of electronics, it was now possible to develop much more compact concrete cutting machinery with high performance and considerably higher efficiency than hydraulic machines.

Tractive entered the market for HF technology in 2004, but also still produced hydraulically driven machinery for a number of years. When Tractive launched its high frequency driven machines, however, Anders Johnsen was concerned that the various technical features on the Pentruder wall saws would be too sensitive for the tough tasks. It quickly became apparent that there was no justification for the concern. Users, especially in Europe, immediately showed great interest in the new machinery and demand increased sharply. Then interest



The unique connector where all information between the saw RS2, Pentpak 3 and the remote control is transported. Just one cable between power pack and saw.

among users also spread to markets such as the USA, Japan, Australia and so on.

In 2005, sales of the second generation of the new technology platform for HF powered machines really took off. In step with the sharp increase in demand,

more efficient production premises were needed, and operations were moved from the plant in Alderbäcken, south of Borlänge, to the current location in Gjutargatan in Borlänge. The 2,000m2 facility was built by Tractive exactly as the company wanted it, being completed in 2005. The number of employees also increased to 16. In the following years, a lot happened within the company. Major investment in a number of different CNC-controlled multi operation machines was made, and the plant was added to and expanded several times resulting in a 2,500m² production area.

At present, there is a great need for, above all, additional storage capacity and production areas, with plans for a further 2,500m² expansion within two years. The demand is high as more and more resellers have been linked to the company's operations. The export share of company activities has increased and is increasing in Europe, the USA, Japan and Australia. This has seen the number of employees increase from 25 people in 2010 to over 50 today.

Since 2014, when an agreement was reached with the American manufacturer ICS Blount, sales in North America have increased significantly. The prevailing rumour in Europe and Japan, that the real concrete cutting connoisseurs (or nerds) choose Pentruder, is increasing also in North America, resulting in more American concrete cutting contractors choosing the brand. "Even though our products have received a 'high-







HFi with new Pentruder RS2 and Pentpak 3.

tech' stamp, they are not more difficult to work with. With the development of our new RS2, the goal has been to make it even easier to work with the saw," says Marie about the increasing popularity of the company's products in North America.

ICS in the USA is the reseller of Pentruder in the US, Canada and South America, with Pentruder currently also having 36 dealers worldwide, including a Swedish and Japanese subsidiary. In the US, Pentruder's main hub is still located in Chandler, Arizona with Terry Martin, who worked with Pentruder long before ICS took over sales and service in the country, still being a key person.

New HFi with the RS2 wall saw and Pentpak 3

On 1 March this year Pentruder launched its third generation technology platform. It may have taken some time to get off the ground but now the company says everything feels just right. "We are three siblings who are responsible for the daily operation of the company, together with our parents, of course. I will not say that our parents have taken the step back when it comes to design and development as well as the overall management of the company, but they are not involved in the daily

operations in the same way as before," says Marie. "Even when it comes to the operation of the company, it's a bit about a generational change in that we siblings, Marie, Kristoffer and I, fully work in the company," added Jenny.

An example of Tractive being more of an 'art form' than a purely a business driven company which only looks at its revenues, is the company's focus on creating good and optimal products for users, often going against the accepted industry norm. What many manufacturers focus on currently is that the so called 'service wall saws' have integrated power packs, i.e. no power pack standing on the floor. At bauma 2016, several manufacturers showed their innovations with integrated engines, including Pentruder. But after a while, Pentruder chose to shut down this development, deciding that it simply could not reach weight requirements if the company was to be able to build in all the smart features it wished to see included.

Instead, its 'Pentpak' remained on the floor, fitted with a new type of communication between saw and Pentpak which was developed to increased performance and power whilst at the same time achieving the same hard hitting goal of keeping the weight of the saw head down. The result was the new RS2 HFi which is a unique

high frequency controlled wall saw with a width in use that is difficult to match. "RS2 could be called a small-medium-large saw as it is small, light and compact, but has a high performance and capacity. The saw can handle blade diameters of up to 1,600mm. Between the saw unit and the Pentpack, there is only one cable that goes into a newly developed and unique connector that sits on the saw head. Here all important data is collected and passed on for control of the saw. RS2, I would like to say, became even better than we could imagine. It has everything. A few years ago, it was unthinkable that we, who are snowed into mechanics and gearboxes, have now landed in a product with less mechanics. RS2, for example, has much fewer gears," says Elin Skantz, who is responsible for marketing communications at Tractive.

There are sound arguments for the new Pentruder RS2 having integrated motors with slip clutches. The 18kW drive motor is integrated, as are two brushless feed motors, one motor for the saw arm rotation and one for the saw's movement along the rails. Both feed motors can be used simultaneously. The saw is waterproof and has blade rotation in both directions. The saw has been made very easy to establish, partly because the saw head









weighs less than 25kg, and is equipped with smart and simple quick couplings for the blade both in terms of putting it in place and being removed. RS2 uses the same rail system as other Pentruder HF saws, which means maximised stability and the best possible handling in the workplace. It has easy mounting of the saw on the rails, with the same mounting distance for the rail feet as other HF saws. All servicing and maintenance of the saw can be done with standard tools. Also, worth mentioning is the new light and stable blade guard which is easy to loosen and put in place and provides very good protection against splashes from the blade. As for the new Pentpak 3, it is very stably built and has a built in RCCB switch, i.e. an earth fault circuit breaker type B.

"Developed and manufactured completely within our own walls"

"The entire new third technology platform has been developed by us, even the remote control for the saw. I would like to say that it is 'state of the art Pentruder'. In general, the saw contains much fewer components that can break than in previous saws. We have not used any standard components; everything is newly developed and tailored. This is a difference from 'generation 2' when we actually used some standard components. We have managed to make the third platform extremely reliable without any loss of power and have created a saw with an efficiency of as much as 93%. It is very good. Other arguments are that the saw has a high torque and large speed range and Pentpak 3 can withstand getting really hot," says Kristoffer Johnsen who is production director at Tractive. "I want to point out that we have been able to test drive the saw a lot in tough conditions and it has been very valuable during the development,"

An important detail regarding production worth highlighting is that Pentruder also does its own metal processing. Many other manufacturers cast their machine chassis in aluminium externally, but Pentruder does not. Instead, Tractive buys the best possible aluminium and mills out each component. This is one of the reasons why the production facilities are so packed with advanced machinery. "Milling instead of casting gives a significantly higher durability in the goods and our machines become more durable and last longer," says Elin. In terms of capacity, there is still a lot of room to increase production, but the bottleneck is, as mentioned, the space itself in the machine hall and warehouse. The existing premises in Borlänge have been expanded in several stages with a mezzanine floor etc. added. The company has invested in several warehouse automation systems and elevated storage room, but the premises are still cramped. "We are now actively working to expand the facility by approximately 2,500m² within two years. We already have the land. What we need most is more storage space and production areas," says Marie.



Strong, loyal and flexible organisation that moves forward

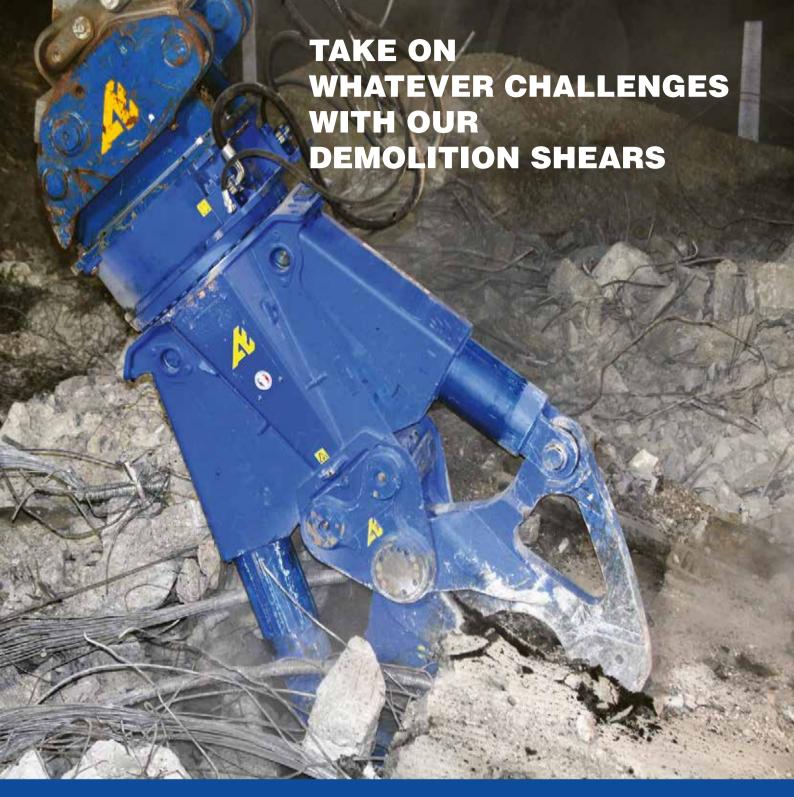
Tractive AB is owned by one family which is managed by the parents and their three children. But the fact is that the whole company is like one family. The organisation is extremely flat, and the decision making paths are very short. Everyone in the company is fully involved in what happens in the company and can exert influence. In times when the world is struggling with a serious pandemic, this is extremely important in order to be able to quickly change operations, change routines and adapt.

We really want to pay tribute to our staff, which throughout the years have been, and are, extremely committed, and take great responsibility. It feels incredibly positive with such a resource in our employees," says Marie. "We have no ambitions to work 'lean', we run our own race without 'toolboxes' and platitudes," Kristoffer continues.

The siblings also emphasise that the company's dealers as an extremely important link in the sales and service network. The company has a very flexible, reliable and strong sales organisation located in all corners of the world. This flexibility is of direct benefit to customers. "A high level of service and sales is extremely important, and the customer should easily reach us when they need help. We also like to be over-equipped with machines, components and spare parts in stock just so that we are sure that we can deliver immediately when a customer needs it. We do not see a large warehouse just as a cost but as an important resource and service measure for the customer. Satisfied customers come back and spread good rumours," says Elin.

Finally, keep an eye out for the new Pentruder RS2 and Pentpak 3. Launched to the market on 1 March this year, the equipment will be demonstrated and exhibited from the spring at various locations and will also be shown at the Demcon and BeBoSa trade shows in September this year.

www.pentruder.com



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Delays with asbestos removal in South Africa

South Africa's planned phasing out of asbestos, has encountered many delays, with no work being done since 2015 in some areas, reports PDi's Kevin Mayhew. The use of asbestos, which South Africa declared unlawful in 1994, and began phasing out, meant thousands of abodes, schools and commercial and industrial structures, and even hospitals and clinics nationwide, have had to have asbestos elements replaced with more benign materials and the asbestos destroyed in an expensive process.

The banning of asbestos is due to it being a carcinogen which has afflicted unsuspecting victims since its large scale introduction in the 1950s. It was used particularly in basic and cheap mass housing by the then apartheid regime's black population. These ubiquitous 'matchbox houses' were used in many townships; the most famous of which is Soweto, south of Johannesburg, where Nelson Mandela lived when practicing as a lawyer prior to his arrest and incarceration for 27 years.

Despite it being stated that finance is in place for the asbestos removal, it is reported that no work has been undertaken for nigh on five years in some provinces. This is of great disappointment to the growing South African demolition industry, which is ready, eager and willing to undertake the removal work in order to protect some of the most vulnerable and impoverished people in South Africa.



A team from Johannesburg based Industech Waste Solutions, a leading national player in South Africa's asbestos removal and disposal sector.



A typical asbestos roof that will have to be replaced in many thousands of homes nationwide in South Africa.



Precision with maximum efficiency

The way a twin shaft shredding unit works is fairly simple: two tools moving in opposite directions draw in the collected waste material for shredding and crush it all together into smaller pieces. If it is purely about volume reduction, for example for easier transport, this can be achieved with conventionally designed shafts. Some applications, however, require specific particle sizes for their processes. Plants that recover energy from waste wood, for example, are usually designed with a standardised particle size in mind.

Oversized particles in the material stream can block the conveyors or safety systems such as rotary valves. In addition, too many fines negatively affect combustion and very small particles might lead to lumps jamming the facility. Therefore, if the required size is not obtained in the first shredding step, the material must be treated further. The crux of the matter is that additional processing is costly, reduces the recycler's profit margins and, in the worst case, leads to customer complaints. To avoid these problems, Lindner's patented 'SF' synchronous fine cutting system is specifically designed based on the following two simple principles.

Scissors and Archimedes screw

The easiest way to achieve smaller particles sizes would be to reduce the gap between the individual cutting tools. Conventional shaft pairs crush the material with rippers acting in parallel. If, in this case, the effective working range were extended, the amount of force required and thus the energy consumption would increase significantly. However, if the angle between the knives is changed, they act just like scissors, effectively

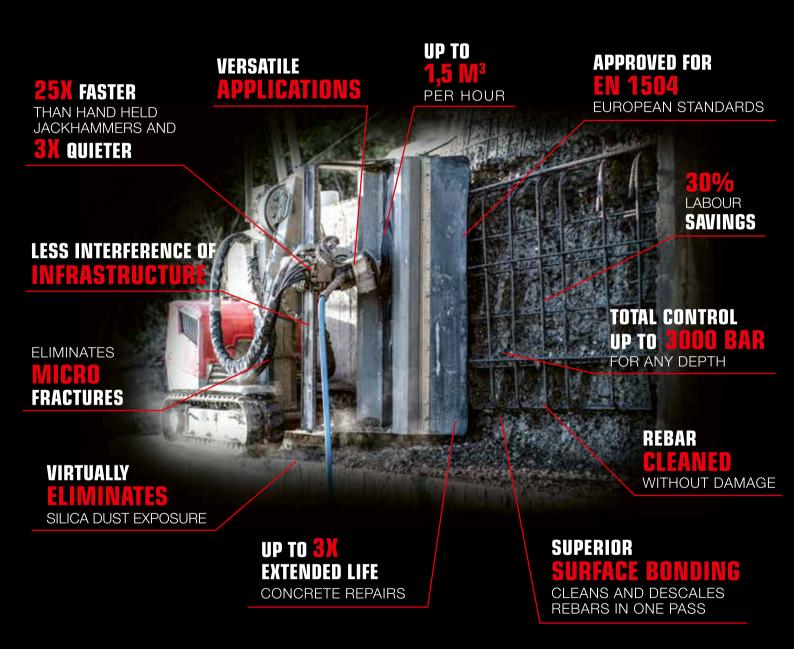
applying force to a much smaller area. This massively increases the individual tools' impact while maintaining the same energy consumption. Thanks to the ingenious arrangement of the knives, rippers and small blocks on Lindner's SF cutting unit, the material is shredded up to four times in one pass. This results in smaller particles with a low percentage of fines. Since less force is needed, the shafts are subject to less stress, which in turn reduces maintenance and increases the cutting unit's service life tremendously.

When looking closely at the entire shaft, it is seen that the cutting edges are not aligned in parallel. Thanks to this arrangement, the two shafts act just like two Archimedean screws rotating in opposite directions. What the ancient Greeks used to transport water over great heights with the help of gravity, positively affects the way the shredding unit pulls in the material. This aggressive intake increases throughput enormously and also mixes the final fraction once again for an output that is as homogeneous as possible.

Past experiences show that with just one single pass, Lindner's shredders from the 'Urraco' or 'Miura' series, equipped with these tools, produce a standardised P100 particle size according to ISO 17225-1, with less than 4% fines during waste wood shredding. This standard basically describes in detail the percentages to be achieved as well as maximum specifications for the main fraction, oversized particles and fines. During the production of these standardised particles, depending on the configuration, Lindner's extremely efficient twin shaft shredders achieve from 20 to 120t/h rates of material throughput.

Hydrodemolition advantages

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PDi site report



ROCKSTER IMPACTOR

helps with sustainability in Hawaii

Alakona Corp from Honolulu has been processing RAP and coral with its new R700S Rockster portable crushing plant.

Alakona Corp, founded in 1982 by Mervyn de Wolff, is an asphalt paving and paving maintenance contracting firm, situated in the Hawaiian capital, Honolulu. Alakona Corp serves Oahu and the neighbouring islands, with a wide list of clients that includes government, commercial enterprises, developers, property managers and individuals. At its beginning, Alakona focused on pavement maintenance, with emphasis on slurry seal, seal coating and minor asphalt repairs. During recent years the company has moved toward its present service/ product mix, deriving its income from asphalt repair, asphalt overlay, new asphalt lay, pavement maintenance, as well as slurry seal, seal coat and crack fill.

Alakona owns several machines including pavers, rollers, loaders, excavators, slurry and seal coat applicators. When looking for a crusher, a focus was placed on compact machinery below 25t. "Wolfgang Kormann (owner and CEO of Rockster) explained in detail how the machine could be beneficial to us and it is true. We are so flexible in terms of processing different aggregates and the material we produce with our crusher is of high value. The screen box is also very beneficial as it allows us to produce different material sizes by just switching some screens. There are some options that others don't have, and we are very enthusiastic about the hydrostatic drive," says Alakona Corp's Arist de Wolff. Thanks to the latter, the performance of the R700S is constantly high, as the hydrostatic pressure always adjusts to the power requirements of the crusher. This leads to a lower diesel consumption per ton of production.

Processing RAP

It was a logical step for Alakona to put emphasis on recycling. "Obviously, natural rock isn't gonna be there forever, in future we would have to ship it in from the mainland. Sustainability is the key factor. We need a lot of material for subbases, base coarse or backfills. Using RAP instead of natural aggregate saves resources and

money. Moreover, RAP contains a bit of bitumen, it is like a glue, holding everything together and giving more compaction," says Arist de Wolff. "We're doing a bunch of tests like the CBR, to make sure the final material is suitable for reuse in our construction projects," he adds. (The Californian Bearing Ratio - CBR - test is a penetration test used to evaluate the subgrade strength of roads and pavements.)

Another material that Alakona processes with the new Rockster crusher is coral. In Hawaii a lot of coral shells are found underneath the soil. So, when Alakona works on street construction sites close to the ocean it usually has to excavate coral. Without a screening system, they run a 75mm minus final product, used mostly for landscaping. "We like the possibility to use the stockpile belt to get another fraction. Coral is quite a hard rock with high density. The crushed material contains less fines than the crushed asphalt. We can use it as base coarse for house or concrete paths," Arist explains.

Easy transport

With a screen box and return belt, the Rockster R700S weighs 22.8t and can be easily transported with Alakona's own flatbed truck without the need of transport permits. This provides great flexibility in terms of the future plan to work as a contractor. It also saves a lot of time and money. We are able to crush so many kinds of material. Within four days of training this summer, we crushed RAP, coral, concrete and basalt. There are so many possibilities for a lot of different customers like construction companies. privates and of course municipalities. You would think that people on an island would be more aggressive into researching, testing and using recycled material, but they are hesitant in trying new things. It needs to be pushed more and people need to understand that this is the future. There needs to be recycled material especially in construction fields where we could save so much natural resources," Arist concludes.

Making a difference with reclaimed asphalt

The road construction industry faces many challenges, with high haulage and material disposal costs and the costs of new materials being high as well as there being a need to protect the environment, with the same problems being faced on large or small projects, new roads or reconstruction work. A solution is available as MB Crushers can be mounted on any brand and size of heavy machinery on the job site. This transforms the equipment into a powerful crusher. This results in any asphalt being able to be crushed down to the required size to be ready for immediate reuse, such as base material for a new road. Asphalt, bitumen, and old sidewalk or city square pavement has become a valuable resource, with the material being able to be used where it is needed or sold on.

The results achieved by one Chilean company that specialises in road construction services demonstrate how the equipment is used. Using an MB-L200 crusher bucket, material was recycled to use as a sub base, with the material being reduced quickly into to different sizes, even on the same job site. In Brazil, a company used a BF70.2 crusher bucket to make reclaimed asphalt - RAP ready to use on site. Furthermore, the landing strips at In Reykjavík, the largest airport in Iceland, were rebuilt by using the old asphalt as a base material, thanks to the use of a BF70.2 crusher bucket. Each MB Crusher bucket is designed to adapt to requirements found on a job site easily as it does not have to be paired with any heavy equipment. It crushes any type of asphalt and hard material, and doesn't require specialised mechanics for its maintenance.





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- Reduce the number of machines on the site.
- Meets and exceeds safety standards globally.
- Increased productivity.

- Increased profitability.
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DYNASET.COM



Here are the latest updates in terms of fully automatic hydraulic quick coupler systems for the demolition and recycling industries.

n terms of easy exchange of hydraulic demolition, sorting and recycling tools fully automatic hydraulic quick couplers are really on top of the agenda. When this new system was launched by OilQuick several years ago, where the machine operator not even need to leave the machine cabin, a lot has happened. New systems and new manufacturers have been added constantly. Maybe in the future we are facing a fully automatic demolition process safely monitored by humans.

Increasing number of suppliers

It is important to clarify that this annual feature in PDi Magazine covers mainly fully automatic hydraulic quick couplers and not so much quick coupler in general. Mechanical quick couplers in general has been around for decades and has simplified the tool exchange for contractors as lot. But the real big changes came with the automatic hydraulic quick couplers that brought many additional benefits to demolition, recycling, handling and sorting applications. First of all, the tool can be changed in almost seconds compared to sometimes hours when the operators had to jump out of the machines and struggle to manually replace the attachment. The result was also often a lot of oil leakage and also safety risks. Today with the tool exchange made in seconds the contractors become so much more efficient and so much more work is done on the worksite. Another extremely good thing is that the right tool is used for the job.

Before when the exchange had to be made manually the operator often ignored to switch to the more proper tool due to that the exchange was too time consuming. The result became a less efficient work and unnecessary damage on the tool.

With the fully automatic quick coupler systems from OilQuick, Steelwrist, Rototilt, Lehnhoff, Cat Work Tools, Riedelberger, Wimmer, VTN, Arden to name a few the operators work get so much easier.

But what is new this year?

The market has today a number of mature systems that has worked very well for some years, so updates are not released every year. But almost every year a few new players are joining.

But first a few words about something that we wrote about during 2020. The Open-S Alliance was launched during 2020 initiated by the two Swedish manufacturers Steelwrist and Rototilt. Open-S is a joint initiative and is based on the established, symmetrical quick coupler standard for excavators (the S Standard) developed by the Swedish trade association for suppliers of mobile machines. The whole idea with Open-S and its initiators is to have an open standard for quick coupler instead of locking customers into a closed interface. Open-S believes that interchangeability is the point and welcomes all manufacturers that believe in a common standard.

OilQuick on the other side who were first with inventing a fully automatic hydraulic quick coupler

system, and patented its system, does not agree to this. In an open letter to the machinery contracting market, OilQuick founder and chairman Åke Sonerud shared his opinion about an open standard for quick couplers. Sonerud sees difficulties in creating an open common standard with so many different suppliers of couplers and attachments. He sees also many obstacles concerning a wide variety of electrical and oil connections as well as big safety risks with mixed systems, to mention a few of Soneruds's comments. Both the presentation of the new open standard Open-S and OilQuick's open letter can be read in PDi issue 5-2020.

Talking about OilQuick, the company announced in December last year that they are launching a new



PDi special feature

logotype for the company and implementing a new graphic profile. PDi already published the news in PDi 6-2020 but it is worth repeating. The change was first launched on the German market during the autumn of 2020 but since December the change is released on all markets worldwide. OilQuick is also changing their website during the first quarter of 2021.

www.oilauick.com

The HCS couplers from Cat Work Tools

In January 2021 Cat Work Tools introduced the new Cat Hydraulic Connecting S Type (HCS) couplers. According to Cat themselves the features of the new couplers are changing the landscape for couplers, with the ability to switch between hydromechanical attachments and be fully operational in a matter of seconds, all while the operator is safe in the cab.

Excavators of similar sizes can share attachments, with HCS couplers covering a wide range of machines from 311-340 tracked and M314-M322 wheeled

HCS couplers average 37 percent better flow capability when compared to leading competitors. They are designed for high-flow performance suited to hydromechanical tools in demolition and in city earthmoving applications. The lower hydraulic restriction results in better machine fuel efficiency. With the minimal amount of time to transition between attachments, operators will be more inclined to switch attachments when needed and use more task-appropriate attachments when needed.

Further, according to Caterpillar, the internal quick disconnects average ten times better life when compared to leading competitors. The quick disconnect design prevents contamination of the hydraulic system, while the coupler design protects important hoses and components from damage inside the coupler.

HCS couplers feature industry-leading sensor technology and multiple measures to keep attachments connected in the event of a hydraulic pressure loss. The coupler also gives visual and audible cues, as well as confirmation on the machine's in-cab screen of a successful connection to the attachment.

Currently in range there are five different Cat quick couplers, HCS60, HCS65, HCS70, HCS70/55 and HCS80 working for 19t to 40t excavators.

www.cat.com





Kinshofer's SmartFlow

Kinshofer has manufactured quick couplers since far back and has a wide assortment. But now the manufacturer also is launching their fully hydraulic system Smartflow. The SmartFlow System was designed to create a fully hydraulic version of the D-Lock & X-Lock quick coupler.

The SmartFlow valve block at the coupler is equipped with oil flow optimized hydraulic valves and a special locking system that absorbs the resulting expansion forces between the valves without transferring them to the D-Lock or X-Lock quick coupler system. There are three types. Size S (150 l/min) for carriers between 6-13t, Size M (250 l/m) and for carriers between 14-23t and Size L (420 l/min) for carriers between 24-40t. SmartFlow has a multifunctional coupling system. The hydraulic valve bank can easily be fitted to every Kinshofer quick coupler and ensures a safe an efficient connection between the hydraulic circuits without manual assistance. The excavator turns in to a multifunctional tool carrier and can easily switch between buckets, breakers, compactors, demolitions attachments, sorting and handling equipment and drum cutters.

SmarFlow has also a safe locking mechanism. The valve locks at the quick coupler and the attachment are securely locked by a separate function. Therefore, the blocks can be mounted in a flexible way. The robust guiding blocks make and arched coupling possible, even at the smallest radiuses.

SmartFlow has a flexible bearing structure. All parts are unified to guarantee a simple service. Up to five oil flow optimized hydraulic valves are screwed into the valve block, but still movable because of a social guiding system.

As a safety SmartFlow has a dirt protection attachment inside. The hydraulic valves and the valve block at the attachment side are protected from dirt and damage by a cover plate. The solid hydraulic valves can be coupled under pressure without the need for depressurization.

For machine contractors working with demolition, recycling, sorting or handling tasks need to switch hydraulic attachments often. Best suitable among Kinshofer's couplers are multi-functional couplers D-Lock System, X-Lock System or D-Lock and X-Lock SmartFlow systems.

VTN's LinkoMatic gain ground

The Italian attachment manufacturer VTN Europe launched their fully automatic hydraulic quick coupler system, VTN LinkoMatic, at Bauma in 2019. Since then it has been thoroughly tested and used and works fine and simplifies the contractors work.

VTN LinkoMatic changes every type of attachment, either with or without hydraulic connections, safely from the cab, easy and fast. The machine operator can comfortably change all tools, either with or without the need for hydraulic connections, simply with the commands present in the cabin, without having to leave his seat and without the need of other personnel outside.

Some features and benefits with VTN LinkoMatic are that it is compliant with EN 474-1 and ISO 13031 norms. It has an integrated hydraulic hook-up and hydraulic connection protection. Further no sensor tech-





PDi special feature

nology is required, and the system offers an easy, quick, comfortable and safe performance. A special prevention for hose damage is saving costs and the design that eliminates oil leakage offers a special environmentally friendly feature.

Rotar release fully integrated hydraulic quick-coupler adapter

Dutch manufacturer Rotar International, well-known for their premium hydraulic attachments for the demolition-, recycling- and scrap metal industries, introduces their latest innovation, the RSQ-full hydraulic quick-coupler adapters.

Rotar offers serial ex-factory their latest innovation of RSO- full integrated adapters, based on the new S standard quick-coupler, on their full range of hydraulic attachments (suitable to Oilquick, Steelwrist, Rototilt).

The engineers of Rotar have succeeded to integrate the new RSQ-adapters completely in the construction of the attachment itself. The hydraulic hoses and connection stay all inside the construction. The rotator-heads of the attachments are completely re-designed for the implementation of the new RSQ-adapters. The installation will be executed at the factory. Once it reaches to the client, no additional installation is required anymore. The new RSQ-adapters are built direct to the slewingring. The bolted hammer top-plate disappears complete.

This ultra-compact combination of the attachment and the new RSQ-adapter offers great advantages for the operator. Depending on the size of the attachment, the combination can be built up to 200 mm shorter and up to 200 kg lighter in comparison to the traditional hammer top-plates. The operator will experience a significant improvement on the stability of his carrier, due to the favourable point of gravity. This improvement makes even a bigger impression on high-reach excavators.



The Rotar distributors or end-user can order their attachment with full integrated RSQ- adapter straight from the factory, which are ready for plug and play. The usual installation of the hammer top-plate and hydraulic hoses/fittings expires. This safe's time and additional costs.

Due to the integrated installation of all hoses, damage hoses on heavy demolition jobsites belong to the past. This increase operational safety and reduce operational costs. It also influences positively the environmental impact and gives the operator a better view.

With the design of the new RSQ-Adapter, a service inspection cover has been implemented. This result in easy access to all components in the upper section of the attachment for any service or repair. Time consumable

dismantling of a hammer top-plate for service inspection or repair is history.

Additionally, all components, fittings and hoses needed for the installation are standardised, documented and listed in the part-manuals by Rotar. This makes rapid repair more easily, as all requested parts are documented. All those measures will reduce down time as well service- and operational costs.

The Rotar RSQ- full integrated hydraulic adapters are currently available for RSQ-60 up to RSQ 90 for the attachment series; RCC Concrete Cutter, RDC Combi Shear, RDP Rotating Pulveriser, RG Demolition and Sorting Grapple and the RSS Mobile Scrap Shear. Additional sizes and combinations on request.

www.rotar.com

Higher hydraulic flow and better ergonomics

Technology development in the construction industry continues. Efficiency and ergonomics go hand in hand more and more clearly. The latest example is the new generation of fully automatic quick coupler systems that introduce new innovative benefits for machine mounts, tiltrotators and implements.

"I was skeptical at first, but this is a difference like night and day", comments Matti Ainasoja at Lindbergs Last & Planering, who tested Rototilt QuickChange

The fully automatic quick coupler system means a large increase in efficiency as the excavator operator does not even have to leave the cab to switch between different hydraulic implements. At the same time, safety increases significantly as no one needs to move around the machine in connection with tool changes. Rototilt has also integrated the SecureLock safety lock into the new system, which means that the machine operator receives a clear acknowledgment that the tool under the bracket is correctly connected thanks to a built-in lock sensor in the cylinder.

Higher hydraulic flows

One of the goals for Rototilt has been to develop a system that will be able to handle high-flow-demanding



tools available on the market. Own tests and measurements also show that that goal has been achieved even more then expected. Both the test drivers who have been able to try Rototilt QuickChange in advance and customers who are now investing in the new technology

"It is a completely new world, a very stable quick coupler with automatic connection of the hoses which means that I never have to get out of the machine to change tools. Those who have never intended to invest in this technology should also not try, because once you have tested, you cannot do without - it's that good", smiles Johan Lindberg at Lindbergs Last och Planering in Norsjö, Sweden.

He is supported by colleague Matti Ainasoja.

"I'm a bit traditional and was at first quite skeptical. But now I have been testing it for a year and the feeling is a bit like when you have just taken a driving license, the freedom. In addition, I can quickly remove

the tiltrotator and put the implement directly on the system's machine mount and thus get extra power when I, for example, drive a tooth scoop or frost hook.

The time aspect is another advantage:

"I save several hours every day. But the most important thing is still not the time, but that the job is done in a safe and correct way", says Robert Viklund, Viklunds Gräv AB in Sweden.

Open standard

Another advantage for the driver is that Rototilt QuickChange is based on the open standard for fully automatic quick couplers for excavators, Open-S. It is a further development of the symmetrical quick-fixing standard for excavators, the S-standard, which gives machine operators and contractors freedom of choice when it comes to combining tiltrotators with implements from different manufacturers that are included

We believe in healthy competition, where industry players compete to have the best products, not to lock customers in a closed interface. If the customer buys a tiltrotator from Rototilt, you should feel confident that all hydraulic implements that follow the Open-S standard fit together", says Anders Jonsson, CEO of Rototilt, which together with Steelwrist is the initiator of Open-S.

Open-S is owned and managed by an independent organization, Open-S Alliance, which in turn is led by a council of technicians from a growing group of member companies.



The cell doors have been wide open for a while. New "guests" will not be received here, at the former jail "The Dome" in Dutch Haarlem, until it has been transformed into the central meeting point of the new university campus.

o this end, extensive demolition work is currently conducted on site by the specialists of Ripping B.V. from Bergschenhoek (NL).

Contractor and investor is the HBB group. They have the circular, domed building cored to have the former location of 200 cells transfigured into the central structure within an environment of tertiary education – including a cinema in the basement. All other buildings will be demolished to provide the necessary space for new living quarters: 250 flats for students, and another 100 units for

social housing, all with the according infrastructure.

The demolition team of Ripping B.V. uses heavy equipment to make short work of the former jail structures. The two excavators Hidromek 300 (32t) and Case CX330HRD (43t) show impressive speed once set to work. Part of that is surely due to the fully hydraulic Lehnhoff Symmetric Quickcoupler SQ 80. Ripping has added those two quickcouplers, which are based on the symmetric s-standard, only in October last year to their equipment, buying them from the dealer DemTech B.V.

Symmetric Valve Technology For More Efficiency and Less Costs

Thanks to the SQ, the machines quickly change between shears, clamshell, hammer, pulveriser, backhoe, screening bucket, and sorting bucket by NPK Europe. "We chose the Lehnhoff SQ quickcoupler last year because it is the system

with the highest flow rate of oil of all symmetric couplers on the market. And, in addition to that, it doesn't increase the counter-pressure. Ever since, our machines have saved quite a bit of fuel", Rippling-CEO Cees Ripping explains.

The special feature of the Lehnhoff quickcouplers is the patented short-lift valve technology with its symmetric design. This ensures a maximum oil flow rate and allows a 180-degree turn of the hydraulic attachments. Consequently – and this is a unique feature even for Lehnhoff – within seconds a crushing bucket can be used as face shovel or high-tip bucket, and a hydraulic tilt bucket can be employed as high-tipping shovel.

Using heavy Attachments Without a Pause

Since using the Lehnhoff SQ 80 on the current jail demolition site, downtime is no longer something



Symmetric quickcoupler SQ 80 by Lehnhoff, here currently working with a concrete cutter.



With the fully hydraulic SQ quickcoupler by Lehnhoff, hydraulic attachments can be easily changed in, some even for reverse mode use.

Ripping B.V. has to worry about. "Before, excavator operators had to wait 15 to 20 minutes after filling a truck before the next would come around. Today, with the SQ 80, there is no need for a pause because he can simply change to a crusher in the meantime", Ripping explains in view of the improved efficiency.

Investment Recoups Quickly With Installation and Maintenance

"The installation is as easy as the changing attachments", says Arthur Polak, co-owner of the dealer DemTech who specializes in demolition, recycling, and civil engineering. "You only have to hock up the valve block with the hydraulic hoses and then place the panel of the security assitance system Lehmatic Safety Control in the cabin." Maintenance, he says, is even easier: "Cleaning the valve block or the change of a valve and seal ring can easily be completed by any excavator operator within

His customers often use the Lehnhoff SQ quick-couplers for infrastructure and rail track maintenance projects, Polak says. "Especially on convined construction sites, it just becomes so much easier. If operators can turn around a stiff bucket or use a tilt bucket, tight corners can be handled a lot more efficiently." The dealer has three variants on offer which Lehnhoff provides for the international market: SQ 60 (excavators from 8 to 18 t), SQ 70 (excavators from 18 to 28 t), and SQ 80 (excavators from 25 to 43 t). In addition to that, Lehnhoff offers adapter frames for bucket conversion, screw adapters for all common hydraulic attachments, and also grip adapters for hanging clamshells.

The DemTech-CEO currently is waiting for more Lehnhoff SQ quickcouplers to be delivered, and Ripping-CEO Cees Ripping also sees an increased demand for them in the near future: "We want to equip our new Kobelco excavator SK270SR with the SQ system by Lehnhoff, too. This allows us to stay within the s-standard and thus, to use all our tools and attachments as flexibly as we want." Especially since the jail demolition will be completed soon, and other projects are already waiting.









Conjet AB strengthens presence in North American

Conjet, the Swedish manufacturer of hydrodemolition equipment, has recently set up its first US subsidiary. The company has hired Stephen Sistrunk to serve as the CEO and Rick Larsson as its national accounts manager for the US operation.

onjet, Inc. was established to improve the sales and after sales support available to Conjet's North American customers. Stephen Sistrunk stated, "As the first priority in 2021, Conjet, Inc. is building a local spare parts inventory that will provide customers with readily available spare and consumable parts for our robots and other equipment. We are also in the process of establishing a physical US headquarters location with an inventory of new robots, and this location will serve as a demonstration and training centre to further educate our customers on the use and capabilities of our equipment."

Conjet is also bringing on additional personnel to provide further sales and technical support to its customers. In March of 2020, Tim Best joined the company as the customer success manager for North America. Tim has over 20 years of experience operating hydrodemolition equipment and managing complex projects. "Tim brings vast expertise to support our customers with equipment operations, service, and project engineering," comments Sistrunk.

CEO of North America

Effective 1 January 2021, Stephen Sistrunk joined Conjet to serve as CEO of North America. Prior to joining Conjet, Stephen spent the past four years investing in construction related technology businesses. He is a partner in Gulfstream Nordic Holdings, which invested in Conjet back in October 2019. Since making the Conjet investment, Stephen has been very active in helping the company improve its presence and customer offering in North America, as well as more generally creating market awareness of the benefits of hydrodemolition. Robert Kreicberg, Conjet's worldwide CEO, stated: "I have worked closely with Stephen since I joined the company in January of 2020. He has done a great job of helping us formulate and launch the company's strategy for growing the North American market, and I am extremely excited to have him join 'Team Conjet'



Stephen Sistrunk.

in a fulltime role so that we can further strengthen our company's presence in North America."

National accounts manager

As the next step in Conjet's plan for North America, as of 4 January, 2021, Rick Larsson has been the company's national accounts manager for the U.S. Rick brings valuable experience from multiple roles such as export sales director and regional sales director for HTC Sweden AB, HTC America and Husqvarna USA. Before joining Conjet, Rick successfully established and operated his own business which performed concrete grinding and polishing for commercial, healthcare and industrial facilities.

'We are happy to welcome Rick to Team Conjet. Rick will play a key role in our ambition to work closer with, and support, our current and future customers in North America the best way possible. Together with the establishment of Conjet's North American branch, Conjet Inc., and the team we are building in the US and Canada, Rick brings unique and valuable experience with his background in both manufacturing technical sales and support, as well as having the perspective of a contractor who is out in the field every day bidding, planning and executing projects. I am excited to have Rick on board. His experience and expertise will enable us to better understand and support our US customers, which is a foundational part of our future growth ambitions," says Sistrunk.



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It all started in Italy in the early 1990s when a father and his three sons laid the foundation of what today is Trevi Benne S.p.A. - a €30M business producing various hydraulic attachments with 80% of its business coming from exports.

taly excels at being a large producer of excavator attachments and also a strong producer of attachments for demolition, sorting, scrap handling and recycling tasks. One of PDi Magazine's oldest advertisers, and one that the magazine has reported on many times, is the company Trevi Benne located in Noventa Vicentina in Northern Italy.

5.500 buckets and 1.200 demolition attachments per year

Although Trevi Benne was founded in 1992 and will soon mark almost 30 years of experience in its field of operations, it still has the pioneer attitude of a young and vibrant company, eager to develop and find new revolutionary attachment solutions for its clients. Trevi Benne has always been a family owned company, with the business starting in the village of Agugliaro not far from Noventa Vicentina where their factory is located today. The company is today led by CEO Luca Vaccaro and managing director Michele Botton. The company has currently 105 employees, consisting of 29 people in management, sales, marketing and administration; 62 in R&D and production, 8 in purchasing and quality control, and finally 6 working with logistics, spare parts and warehousing.

In 1992 everything started with only 10 employees, including the founder and his three sons, working from a total production area of 2,700m² (compared to today's 27,000m² of commercial, technical and production facilities). The company has annual revenues of over €30M, with over 80% of its production being exported to over 50 different countries working with more than 100 dealers.

Besides the R&D sales and financial departments, the production department consists of 16 work stations for demolition and recycling attachments, and 20 work stations for bucket production. The majority of the components are produced in house, but some parts are produced by eight nearby satellite partners. Annually Trevi Benne produces some 5,500 buckets and attachments and 1,200 demolition and recycling attachments, with the company using around 4,500t of steel per year.

In 1999 Trevi Benne moved from the facility in Agugliaro to a 9,000m² facility in Noventa Vicentina. In 2007, when celebrating 15 years in business, the company moved again to a new 13,000m² production centre, technical offices and warehouse. In 2015 a new commercial building and administrative offices



The Trevi Benne Multi Kit series in action.

of 450m2 where opened and in 2017, another 900m2 production extension was completed dedicated to demolition equipment production. Now in 2021 another expansion project is underway for the future construction of a new annexed production plant of almost 2,000m2.

Buckets and quick coupling systems

Everything started with the construction of Trevi Benne's first digging and loading buckets for excavators and quick coupling systems for buckets and equipment for loaders. Trevi Benne even received an award at the Sa-MoTer show in 1993 for its self-locking quick coupling system for excavators, and the invention and patent for the first BVR screening bucket in 1994. In the same year, the first demolition attachments were developed and manufactured.

The company has grown and developed greatly since its beginning however. "Many problems emerged in the realisation of the first models. Above all is the inability to purchase the correct wear resistant materials and the lack of knowledge of the behaviour of the materials themselves in the actual demolition phase," explains Trevi Benne marketing manager Christian Tadiotto, who has been with the company since 1997, starting as a 24 year old. "Then we can add inexperience in design, in the study of kinematics, in calculations of resistance of materials to the stresses of demolition and the difficulty of finding reliable components. All these factors made our first approach to the world of demolition complicated. It was only in 1996 that the company, with three years of experience, not only in production

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but also going out personally on the field, began a near standard production of the first primary demolition crushers and the first stationary and rotating pulverisers."

After some hard years at the beginning, things started to develop faster and faster. The product range was built on and expanded continuously. Today, production is split in two main categories: Category 1 is attachments for demolition, recycling, handling, metal cutting and forestry. Category 2 is attachments for earthmoving, including excavator and loader buckets, quick couplers and heavy duty buckets for the mining segment. "For the line of demolition and recycling attachments, we have 26 complete series of attachments with a total of 170 different models. In terms of weight it starts with the smallest PMZ 02C grapple of 145kg to the primary crusher HC 250, weighing 27,300kg, informs Christian.

Buckets for excavators and loaders, quick couplers and in general all equipment for earthmoving machines, are classified into different classes referring to the weight of the operating machine, although there is no real standard product from Trevi Benne. Each type of bucket and various other equipment can be customised, using different components and materials according to the user's requests and needs. With a catalogue of over 120 pages, and more than 5,500 buckets produced per year, it is obviously difficult to determine the right number of models. "We can only say that from a mini excavator of 1.5t to the 500t mining excavator, we can produce everything," explains Christian.

Producing what the customer needs

Trevi Benne is a manufacturer that builds what the customer needs, with there being many bespoke attachments built over the years. Tailor made production represents some 20% of the company's turnover (a very significantly percentage). "We are not series builders and we do not have an organised production process for repetitive serial production. However, thanks to our efficient warehouse management and the interchangeability of some standard components, for example the rotation units for the demolition and recycling attachments, teeth, bored adapter plate, cylinders, etc, we can



Trevi Benne owner and CEO, Luca Vaccaro.

optimise production and manage almost in a standard way many parts of the equipment," says Christian.

One of the most ambitious projects completed was the construction of the HC 250 primary crusher weighing 27.5t, the biggest ever. "It was a huge challenge from every point of view. It started with an informal request in November 2017 and ended with the delivery in August 2018, passing through meetings with engineers, preliminary projects, estimates and order confirmation. All this having to strictly comply with four specific cus-



The current plant in Noventa Vicentina, Italy.





A rather new product series from Trevi Benne is forestry

tomer requests which were that the attachment's weight should be suitable for a customised 300t excavator, the attachment should have a high penetration jaw profile without blades, it should have a jaw opening of 3m opening and force at the tip of 400t," explains Christian.

After 120h hours of projecting time, 120h mechanical machining, 50h of assembling and 250h of welding, the result turned out to be 'amazing'. "It was a monster jaw of 5,000mm in length with a jaw opening of 3,100mm and a tip force of 425t. I have never before seen something like it," says Christian.

Strong continuous growth with exports dominating

Trevi Benne's responsiveness and ability to listen to client needs has helped a lot over the years. A clear sign of that is the strong growth rate experienced over the years. A good example is that between 2014 and 2019 the company doubled turnover from €15M to over €30M. Due in the main to the pandemic and forced closure of



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The customers is Trevi Benne's most

important asset.



the factory for six weeks, turnover declined slightly in 2020, down to approximately €29M. Despite that, Trevi Benne managed to reach a prestigious record in 2020, delivering its 10,000th concrete pulveriser.

As mentioned, the export share for Trevi Benne is today 80%, with the remaining 20% being sold domestically. In Italy the products are sold directly to machine dealers, authorised workshops and to large demolition contractors. The currently biggest markets in chronologic order are France, Italy, USA, Germany, United Kingdom, Switzerland, Scandinavia and the Northern European region, Australia and so on. Around 100 exclusive dealers target demolition and recycling customers, scrap yard companies, rental companies, building and construction contractors and customers in the mining and quarry businesses. The goal now is to consolidate and strengthen the Trevi Benne brand, particularly in some European markets that in the last two years have produced mixed results. "It is equally clear that with the current coronavirus situation it is complicated to make strategies, budgets and medium and long term plans. The absence of trade fairs and the inability to move freely to work and visit customers and distributors complicates the normal business relationship and the interaction that is always created by a real and not virtual visit," says Christian.

'Can't wait to get back to normal'

Finally, it is worth mentioning how the coronavirus has affected Trevi Benne and Italy as a whole. Despite the general opinion that the market in 2019 were going into recession, Trevi Benne had a very good

2019, and the first two months in 2020 were showing an increase in sales of 10%. The expectations for 2020 seemed very good. But then Italy was the first country after China to be hit hard by the pandemic. "We have added new terms in our vocabulary that have now become common place like lockdown, assembly, night curfew, safety distance, etc. You are never ready to give up your habits, to wear protections, to face such an enemy especially because you cannot look at him in the face, discover his weaknesses and beat him completely. The first wave was very tough: clubs, public buildings, schools, companies, cinemas, restaurants all closed. Difficult to digest and even more difficult to count the victims daily," says Christian.

After a year where the professional sales work mainly has consisted of numerous webinars, video talks, video conferences, etc., Christian and his colleagues are waiting to take up travelling and meet customers in real life again. Christian is also waiting for when the exhibitions will open up their doors again. He has wonderful memories of the last exhibition he attended, Conexpo in Las Vegas, March 2020. After that everything was locked down.

Christian is very optimistic about the market when the pandemic has been conquered. "I always think that after a period of difficulty, deprivation or suffering, there is the desire and an immeasurable will to get to work and to restart again. I believe the market will react positively, companies will return to investing, major demolition and redevelopment works will finally be started or restarted. I am very optimistic about the future for us as company and the industry as whole."

The question does arise about competition from other manufacturers, and has that changed during the pandemic? Christian believes things are the same: "Competition itself is not a bad thing. It is almost part of the market equation. The competition often pushes you to want to improve your product, to look for alternative solutions, different approaches to make yourself more visible and attractive to the buyer. We produce niche products and the competition is often very fierce and aggressive. In Italy there are really many manufacturers of crushers, hydraulic hammers, buckets and equipment for excavators. Many of them have important corporate structures, well-structured sales networks and high management costs; and then there are many companies almost at an artisanal level. Fortunately, price is not always the main discriminant when doing business.

In our profession, anyone who buys demolition equipment knows exactly what he wants. If you work in a dealership and sell cars, your customer is unlikely to be an expert in engines, chassis, mechanics and performance. But in our world, the user is truly an expert and often knows more than us how the attachment should work. When our customers buy, they do so not only by looking at the price but by evaluating the technical characteristics, technology and obviously the brand. As for foreign competitors, I can say that obviously there are (some) and (they) are well represented on the Italian market. But the local user has a lot of faith in made in Italy products and obviously assistance, speed in finding spare parts, with service being a fundamental value in choosing the right equipment," concludes Christian Tadiotto, marketing manager, Trevi Benne.

www.trevibenne.it

Promove delivers new CR800 to Italy and Norway

Promove CR series crushers have been designed for the crushing of building materials and the cutting of internal metal reinforcements, being distinguished by their speed and versatility of use.

At the beginning of December, Promove delivered a new CR800 fitted to a Hitachi FH150 to a disposal centre in Bellona in the province of Caserta. The crusher was chosen for the recycling and disposal of construction and demolition aggregates. The CR800 crusher processes recyclable materials coming from construction, demolition, excavations, and road projects. Some of the features that determined the customer's choice were the compact design of the crusher which appears as a single



block between the body and the fixed jaw, eliminating welds that would make the structure weak. A wide jaw opening of 550mm, an excellent closing / opening speed and oversized pins help to ensure the maximum possible

duration of use in the most demanding working conditions have proved highly useful.

CF130 first model in Norway

In late December 2020, the company SDK-Dagenborg delivered a Case CX130 D equipped with a Promove CF130 fixed pulveriser to a small contractor in Norway. The goal is to collect concrete from various projects, sorts out iron and use concrete as filler in suitable projects, with the iron being recycled. The contractor says of the new purchase: "This is the first crusher I have in my company; I am very happy with the product and would definitely recommend to others." He notes that thanks to the maximum opening of 701mm it allows the crushing of bigger material portions and optimises daily production.

Another feature of the CF130 is its new compact designed with a weight of 1,300 kg. It is also highly manoeuvrable (1.7m total length), built entirely in Hardox 400 and designed as a single compact block without any welding between body and fixed jaw to give greater robustness in the crusher structure. It has been designed with interchangeable teeth, instead of previous fixed plates, resulting in a reduction of maintenance costs and in easy maintenance directly on the job site. The CF130 has three rows of two teeth, of which the central one is staggered and lowered below the one that allows the shearing of the material before the actual crushing.









Demolition is a vibrant sector that has seen market growth both in Italy and in Europe. To meet this demand, Doosan has launched a new range of high reach excavators comprising of the DX235DM and DX530DM models introduced in 2020, and the DX380DM, which will be launched in the first half of 2021.

particular advantage offered by these machines is their flexibility, allowing the user to easily switch between the demolition arm and an excavating arm and vice versa, making it possible to perform different jobs on the same site, with the same machine. Doosan demolition excavators are also equipped with a unique high visibility cab that tilts up to 30°, specially designed for high reach applications. These features were decisive in a company choosing the DX530DM for demolition work on the former Belloli oil mill in Milan in Italy, where a new school complex for the town is to be built on the 18,000m² site. Responsible for the work is Seli Manutenzioni Generali Srl, a Milanese company with over 50 years of experience in the construction sector, which has seen its Demolitions & Excavations business unit grow impressively under Ivano Perego, the commercial director.

Doosan DX530DM ideal for the Job

The demolition work involves the removal of the two sets of buildings in the old oil mill, a smaller tower and the imposing old concrete silos. These rise to a height of about 32m and have a capacity of around 12,000m3. For a demolition of this magnitude and at this height, the DX530DM, the largest demolition excavator model produced by Doosan, was the ideal choice as it has a 29m boom and impressive work range. In this top-down demolition, the DX530DM, equipped with shears, has been used to tear down a building made up of reinforced concrete bearing structures - beams and pillars - and thick brick slabs from above. As with the entire Doosan range of demolition excavators, the DX530DM also offers hydraulic undercarriage adjustment, allowing the width to be extended to 4.37m for optimal stability, which is essential on sites of this type. The undercarriage

width can also be hydraulically reduced to 2.97m for transportation purposes.

The DX530DM with demolition arm has been joined by two other Doosan crawler excavators on site: a DX235NLC-5 working with a concrete crusher and a hammer and a DX300LC-5 with a concrete crusher working on the demolition of the concrete tanks. Once the demolition is complete, the DX530DM will carry out the excavation necessary to prepare the ground for subsequent construction works. For this work, the demolition arm on the DX530DM is simply replaced with the digging arm, maximising the versatility of the machine on site. To facilitate the change of the arm, the machine is equipped with quick acting mechanical and hydraulic connections. A cylinder drive completes the operation by pushing the locking pins into place. The modular design of the Doosan demolition excavator family also offers two mounting configurations for the excavator arm, further expanding the versatility of the machines which are therefore usable in three different configurations.

Machines supplied by Doosan dealer DMO

The Doosan machines on Seli's Belloli project were supplied by DMO, the authorised dealer for Doosan and Bobcat for the regions of Emilia Romagna, Veneto, Friuli Venezia Giulia and Lombardy (the provinces for Milan, Cremona, Mantua, Lodi, Pavia, Varese, Monza and Brianza). The two businesses have built a successful commercial relationship and Seli has chosen DMO to be the company's main supplier for the rental and sale of earthmoving machinery. Ivano Perego, of Seli's Demolition & Excavation division, said: "We rely on DMO both for the purchase and for the rental of Doosan machines, which we customise with the white

and yellow colour scheme that distinguishes our fleet. Based on our excellent experience with the Doosan range, we have implemented an investment plan for our new Business Unit in order to have a machinery fleet capable of coping with the important orders we are winning."

"Seli is currently active on 11 demolition sites in Milan and the surrounding province, as well as on an important construction site in the heart of Turin, in Piazza San Carlo, where we are carrying out a demolition with Doosan machines on behalf of Banca San Paolo. The workforce at the Demolitions & Excavations business unit is also growing. We already have a team of over 30, including operators and site workers. We expect to be employing more than 50 people this year."

Gianmaria Lupis, the DMO sales representative for Lombardy, added: "The strong commercial relationship between DMO and Seli is continuing to translate into new machine orders, including the recent arrival of 40t DX380LC-7 and 50t DX490LC-7 excavators. The two new Doosan excavators are extremely robust and productive, ideal for demanding jobs such as demolition. DMO offers efficient specialised technical assistance, both in the 2,000m² workshop at our new Melegnano headquarters, and directly on site, through our service engineers. This service is highly valued by Seli and by our other customers who continue to place their trust in DMO."

Seli's investments are not just limited to the company's fleet. The company has purchased a 20,000 m² site for the storage of inert materials, where a recycling plant will soon be established. This area is in the municipality of Bernareggio, in the province of Monza and Brianza. A new Doosan wheel loader is already planned for the new depot.

PDi site report

Arjes put through its paces shredding demolition waste in Finland

Kivisampo Oy is the Finnish dealer for German company Arjes, which has been manufacturing double shaft shredders in various sizes since 2007. The company's smallest Arjes machine recently undertook a demonstration programme in Finland with the unit shredding a wide range of materials.

"We quickly decided to add the Arjes Impaktor 250 evo to our product range because there is a clear mandate for a small crusher. Many recyclers need to crush several materials, but the volumes may not be large enough. Nevertheless, every challenge must be addressed and this works very well with the compact Impaktor 250 evo. After the start of the demo tour, operators seem to have a great demand for a small and versatile machine that can shred numerous waste products," says Petri Ihainen from Kivisampo Oy.

The Impaktor 250 evo can be equipped with two different types of shredding shafts: one pair of shafts is for crushing concrete and asphalt, whilst the other is for such materials as waste wood, roots, mixed construction waste and other types of waste.

The shafts on the units are 1,500mm long and 680mm in diameter, are attached to a quick change cassette and can be changed quickly if the material to be shredded changes. Below the shafts is a crushing bar and two counter rakes on both sides. When crushing concrete and asphalt, counter screens are kept closed so that the grain size of the end product is 0-60mm. If the material to be crushed changes, the counter screens should be opened, resulting in a larger proportion of the end product. For example, tough roofing felt or wood waste is discharged in pieces of 0-250mm in size.

"The compact Arjes shredder is best suited where a variety of materials need to be processed, but in manageable quantities," Petri Ihainen continues. In the first demonstration test run, the capacity for concrete was 65-70t/h with a material feed size of 0-700mm. Compared to impact and jaw crushers, there were no material blockages and interruptions in operation, according to Ihainen. All the metal in the concrete was broken into pieces of about 100-350mm and separated by a magnet. The machine also has a water spray system as standard to reduce dust in the hopper as well as on the discharge conveyor. There are three predefined programmes for adjusting shaft rotation, with pressure switches noting changes in the resistance of the shafts and adjusting the direction of rotation. "Thanks to this system, there is no clogging. The shafts each rotate at different speeds and in opposite directions to prevent clogging," Ihainen adds.

Equipped with a Stage V compatible 129kW Volvo Penta (TAD 581 VE) engine, the unit has easy access for maintenance and cleaning. The height of the discharge conveyor is 3m, which Ihainen states is very good for a unit of this size. The operator of the feeder can use the remote control to control the functions of the unit and, among other things, move the unit if necessary. All control functions are found on the mechanical levers on the unit's side with the crusher unit itself being 2.25m3.





McCusker Demolition Ltd, based in Belfast in Northern Ireland, has purchased the company's first Bobcat machines from Northern Excavators, the local authorised Bobcat Dealer. McCusker has added a new Bobcat T40.180SLP 18m telehandler and a Bobcat E62 6t mini excavator.

The Bobcat machines have joined an already impressive fleet of equipment at McCusker, which operates on behalf of a host of high profile clients throughout Northern Ireland, the Republic of Ireland and Great Britain, specialising in a wide variety of demolition and dismantling projects. Conor McCusker, contracts manager at McCusker Demolition, said: "While the company had had no experience of the Bobcat brand, some of our operators have worked with the machines in the past and, in part, it was their recommendation that influenced our decision to invest in them."

Working on projects in urban and city centre areas and in sectors that range from domestic, industrial and commercial, to healthcare and education, only the best and most reliable equipment will do, and McCusker has been very impressed with the Bobcat machines in their first few months of service. "You couldn't ask for better machines," Conor McCusker added. "They have been performing brilliantly on site; they are very versatile, reliable and robust machines."

High lift height work

According to Conor McCusker, the Bobcat T40.180SLP provides top class performance for high lift jobs. The easy to use compact stabilisers ensure that it is simple to exploit the machine's full capabilities in the most confined working areas. In addition to safe working practice, the stabilisers are a big advantage when the machine needs to get close to a building without losing reach. Conor McCusker continued: "We purchased the T40.180SLP primarily for its 18m maximum lifting height; it's ideal for working at height, and with a basket attachment we can easily transport men to those higher levels. It also has an excellent and comfortable cab that affords good all round visibility which is essential for our type of work."

The new T40.180SLP is currently working on a project to convert the vacant Brookfield Mill, a four storey, former linen factory built in 1850 on the Crumlin Road in Belfast, for residential use. Working on behalf of the client, Kerr Property Holdings Ltd, McCusker Demolition is carrying out demolition works for the scheme which will provide 77 social housing units for the Clanmil Housing Group. Conor McCusker commented: "As we speak, we have a team working on the top floor of the building, reducing the structures like

they have already on the lower floors. Instead of using a chute, they are loading the debris into the bucket on the T40.180SLP, which utilises the full 18m lift height of the machine, providing increased flexibility for taking materials away and stockpiling them at ground level."

As well as the lift height of 18 m, the T40.180SLP telehandler has a maximum lift capacity of 4t. In addition to outstanding results in jobs that require high lifting heights, its compact stabilisers, frame levelling and boom positioning system provide greater productivity in all types of material handling and maintenance applications. The T40.180SLP is the top of the range model in the Bobcat range of 13 rigid frame telehandler models, covering a total of up to 23 versions, with maximum lifting capacities between 2.6t and 4.3t, and lifting heights between 6m and 18m.

All models in the Bobcat rigid frame telehandler range are covered by a standard three year or 3,000h warranty. Like all new Bobcat machines, this is extendable under the company's 'Protection Plus' extended warranty plan, offering cover up to 5years and/or 6,000h. Conor McCusker added: "Alongside the T40.180SLP, we also purchased a Bobcat 7m telehandler from Northern Excavators, which is performing very well on a project to refurbish an Ulster Bank branch in Belfast."

Turning to the Bobcat E62 mini excavator, Conor McCusker said: "What initially appealed to us about the 6t E62 excavator was its compact size and its zero tail swing which make it perfect for working on sites that are restricted or are difficult to access with a larger machine. The E62 excelled on its first contract, working at St Mary's Church, a vibrant, growing church and community centre, right in the heart of the Ballybeen Estate in Dundonald on the edge of East Belfast. The E62 should already be working on its next project, but unfortunately the start date has been delayed." A stand out feature on the E62 is its hydraulic performance, with a maximum flow rate of 132l/min. This is complemented by the high digging forces offering a maximum reach at ground level of 6.1m, a maximum dump height of 4.05m and a maximum digging depth of 3.82m. The E62 has a travel speed of 2.7km/h in the low range and 4.4km/h in the high range. Bobcat has just launched the new R2-Series E60 model, which is the replacement for the E62.

Lehnhoff Symmetric Quick Couplers

The fully automatic SQ couplers from Lehnhoff are based on the S-standard and have superior valve technology with some outstanding features:

- highest oil flow, integrated depressurization unit
- reverse mode use of hydraulic attachments like crushing or tilting bucket



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New Simex RW 350 and RWE 35wheel saws

Simex has further expanded its range of wheel saws with new models for the RW and RWE ranges.

The new wheel saws are designed for mini trenches, specifically for laying fibre optic cables. The attachment is characterised by different cutting wheels with a variable thickness of 25-30-40-50-80mm, operating at a depth of 250-300-350 mm, which can be mechanically manually adjusted. The RW 350 is equipped with a self-levelling (swinging) system, which thanks to its articulated support, rotates on the axis of the drum with the slides remaining on the ground, providing a constant trenching depth in any conditions. The particular design of the outlets and the trench clearing device with manual-mechanical insertion ensure the correct expulsion of milled material, leaving the trench cleared at the set depth.

The RW 350 wheel saw is an extremely versatile attachment, designed for mounting on skid steer loaders with the addition of the hydraulic side shift, and for 5t to 10t excavators. Both the RW 350 and RWE 35 represent Simex's latest development in the field of mini trenching for laying fibre optic cables, clearly demonstrating the fact that the company has never lost sight of its primary market. Simex continues to strive to provide concrete solutions to technical problems via various specific application developments.



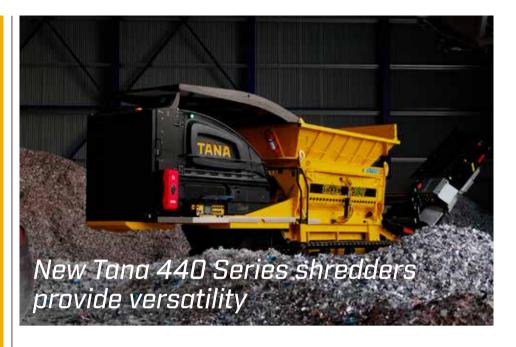
Solga Diamant joins IACDS

Solga Diament is a Spanish manufacturer of diamond tools that distributes its products in more than 50 countries. The company has 60 years of experience in both the construction and stone industries, developing solutions for its customers, often tailor made to their needs. It is also a member of the European Federation of Abrasives Producers (FEPA), which ensures that its manufacturing processes respect European quality standards. In addition, its products are certified by ISO 9001 and ISO 14001.

Solga Diament is committed to operating in a sustainable way and as a civically responsible company,



acting in a socially and ethically responsible manner. Raw materials and technology, as well as its team of highly qualified professionals, guarantee the quality of the manufactured product.



The popular Tana 440 shredders have been further improved in response to feedback from customers and dealers. The first new model of the 440 series is the Tana 440DTeco shredder which is said to be even more versatile, more productive and easier to use.

The versatility, productivity and ease of use of Tana 440 shredders have been taken to a new level following improvements suggested by customers and dealers. The 440 has traditionally been the company's most popular shredder, being used for processing challenging waste applications, such as mattresses, tyres, plastics, cables and textiles. Versatility was already a major advantage of the Tana shredders, and the new 440DTeco is now said to be even more versatile. The biggest change externally on the new shredder is a higher machine frame, which allows over 200mm more space between the conveyor and the rotor on track models. The new frame structure allows more space for material flow underneath the rotor, helping especially with the pre shredding of bulky materials, such as plastics and mattresses. Similarly, the new hopper design features a raised wall to prevent un-shredded materials from falling onto the discharge

In addition to the traditional 33 knife rotor, there is also a new option of 44 knives for added shredding performance. For example, the 44 knife rotor has been found to increase capacity / output in tyre shredding by 25 %. The extended rotor offering also includes options for heavy duty use and for optimising operating costs. In addition, with the updated labyrinth seal the rotor end structure has been improved to protect the gearbox from external objects.

Clean and efficient flow of materials

The flow of materials through the shredder has been improved in many ways in the new 440 series when compared to its predecessor. This further increases productivity and improves the quality of the end product. The cleaning combs are now bolted on instead of welded, enabling a quicker fix when needed, with different cleaning combs being available for different purposes. Shorter combs for tougher materials and coarse shredding to ensure the best durability and wear resistance; longer combs are for easier materials and fine shredding to

ensure the best output quality in terms of homogeneous particle size, whereas bolt on cleaning combs also make maintenance easier being easily replaced if damaged.

The conveyor system has been completely redesigned. The new structure features two separate conveyors: a transfer conveyor underneath the rotor and a discharge conveyor at the end of the machine. The speed of both conveyors can be adjusted separately. The frame of the discharge conveyor is now self-supporting enabling easy angle adjustment, even during operation. Also, the scale system calibrates itself automatically depending on the discharge conveyor angle. The optional over band magnet also features many updates, with the magnet being repositioned higher allowing larger metal piles, whereas the space between the magnet conveyor and the discharge conveyor can now be adjusted hydraulically during operation, and the discharge side can be changed.

A new 'Tana Control System' (TCS) features a touchscreen display on the side of the shredder that is used to control all of the machine's functions safely and in one place. The new user interface is extremely easy to use and helps the operator find the most efficient settings for each process. The new and improved TCS with added 'sensoring' and updated electrical control enables operation to be more efficient and precise. The operating system can be updated remotely and the 'TANA Pro-Track' information management system helps optimise the shredder's utilisation rate and save fuel.

Global services keep the wheels spinning

The new Tana 440 series combines 15 years of user experience with Tana 'Shark' shredders with the latest technical innovations. Tana's customers and dealers have played a key role in the development of the new shredder series. The 440 shredders are available as track, trailer and electric models. The TANAProTrack information management system, Tana service kits and a global sales and service network help maximise productivity at all times, anywhere in the world.





New compact dust suppression design delivers

exceptional mobility and versatility

As effective dust control continues to gain importance across a wide range of industries, new BossTek equipment design has been engineered to provide improved mobility and performance, delivering effective particle suppression for new and existing applications. With a throw of 30m, adjustable elevation angle and user defined oscillation allow precise aiming of a powerful dust capturing mist, which is comprised of millions of 50-200microns droplets p/min.

The 'DustBoss Atom' from Boss'Tek is a true innovation in mobile dust suppression, being a fan less, self-contained design that incorporates remote control and 4G LTE telematics technologies as standard equipment to deliver an unprecedented combination of suppression and monitoring. The compact, diesel powered unit fits in the back of a pickup truck, so it can be quickly positioned and relocated to address dust generating activity directly at the source. It also has fork lift pockets on the front and back.

"After more than 15 years of designing purpose built dust suppression equipment in a variety of sizes and styles, we found that some companies expressed a desired for a smaller, more manoeuvrable unit, with a lower price point," said BossTek VP of sales Mike Lewis. "This machine is well suited to demolition projects, recycling operations, transfer stations, bulk material processing, ports/shipping applications, quarrying/crushing, biomass handling, concrete curing and even indoor operations where significant air movement may be undesirable."

The unit features a Kohler KD440 power plant, an air cooled engine that meets Tier-IV Final emissions standards and complies with California CARB requirements. A unique air filtration system increases

performance and lengthens service intervals, even in dusty environments. Its integrated fuel injection system and overhead cam design are coupled with a cast iron cylinder liner for consistent, reliable service. The engine and pump subassembly is secured by four isolation mounts that minimise vibration transfer to the frame. The high impact stainless steel nozzle features a quick disconnect for easy replacement.

"In addition to its compact size, what really sets this unit apart from other designs is the built in communications features," Lewis continued. "The hand held remote controls virtually every function, and the telematics provide a web based platform to monitor status and streamline service and support. The system tracks engine hours, operating temperature and average run time per day, and provides readouts of suggested maintenance," he added. "It can be programmed to monitor machine location via GPS, and can even troubleshoot remotely or 'geo-fence' each unit, so it'll only function within proscribed locations. The telematics are so sophisticated that users can remotely disable machines, if needed."

The system is fitted with a Cat Pumps 56G1 water pump that requires just 0.344bar minimum inlet pressure, connected by a 25mm cam and groove quick disconnect fitting. Considered by many to be the world's most dependable high pressure reciprocating triplex plunger and piston pump design, the unit has specially formulated seals and high density, polished ceramic plungers that are optimised for long service life and durability. It also includes protection against pressure drops, where if a low pressure situation is detected, the unit shuts down to prevent damage to the pump or overheating of the engine.



IACDS welcomes NADECO as a new member

NADECO (the Italian National Association of Demolition and Circular Economy for Construction) was created through the merger of NAD (National Demolition Association), and AIDECO, thus bringing together the largest Italian organisations operating in the deconstruction chain. The association has set itself as the point of reference for this growing sector of construction. The association's purpose is to protect the interests of specialised companies in the field of demolition, environmental remediation and treatment of construction and demolition waste within the framework of the market economy. It will promote the connection, progress and development thereby representing such businesses in relations with institutions and administrations, economic and political organisations and other parts of society.



Mecalac launches two piece boom with offset for 6MCR and 7MWR excavators

Mecalac has unveiled a new boom configuration for its 6MCR crawler skid excavator and 7MWR wheeled excavator. The two piece boom with offset is designed for traditional applications, such as excavation work and truck loading. Operators can still specify the traditional Mecalac boom with offset configuration for more diversified work depending on the needs of the user. The two piece boom with offset features a stick cylinder located above the boom (not underneath as is

found with the standard Mecalac boom). This provides the user with a wider working angle, faster movement and higher penetration force. The two piece boom offers dimensions and a work envelope similar to those of the Mecalac boom. It is still compatible with the use of loader buckets and pallet forks. The Mecalac boom with offset remains the preferred option for customers looking for maximum versatility thanks to its lifting capabilities and power.



From bare steel, Komatsu's demolition excavators are designed and manufactured as fully-specified demolition machines, and all key components thoroughly tested so you can work safely and efficiently. Demolition is a business for experts.

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Aquajet's North American branch offers on demand training options to maximise productivity and safety on the jobsite through its network of facilities.

AQUAJET TRAINING OPTIONS PROVIDE CUSTOMISED SOLUTIONS

Aquajet, the leading global hydrodemolition machine manufacturer, now offers on demand training options to maximise productivity and safety on the jobsite. In addition to in depth, hands on training with each machine commission, Aquajet's North American subsidiary provides continuing education options on site or through its network of facilities across the United States. Training is tailored to customer need and operator experience to ensure long term hydrodemolition success.

"The key to a safe, efficient hydrodemolition jobsite is thorough training," said Roger Simonsson, Aquajet managing director. "Whether new to hydrodemolition or a long time operator looking to keep their skills sharp, customers will find our sales partner in North America, Brokk Inc., offers a number of personalised training options to help maximise machine performance in any application." Training by a specialised Aquajet technician accompanies the sale of every machine and is tailored to fit the customer's application and experience level. This comprehensive, on site education provides individuals or small groups with tips and information pertaining to safe, productive operation of the new equipment with training technicians boasting years of experience using Aquajet machines in a variety of applications.

Initial training caters to each operator's skill level and covers basic and advanced operating modes, safety for the machine and around high pressure equipment, manoeuvring the machine, reading blasting results and making proper adjustments and equipment maintenance. Upon successful completion, the trainee will be a licensed Aquajet operator. Additional training opportunities offer customers a customisable, in depth curriculum designed to help optimise operations and efficiency. Known as the 'Aquajet Academy', this multiday programme goes beyond safe operation to focus on six key areas: products, the concrete removal process, streamlining work, safety and technique, service and train the trainer. Academy graduates serve as a resource for their operations with their in depth knowledge of the hydrodemolition method and equipment and how to leverage it for a competitive advantage. Again, the curriculum can be customised to the customer's needs and can be held on site or at one of the U.S. facilities located in Monroe, Washington; St. Joseph, Missouri; or Stanhope, New Jersey.

"While safety is always a top priority, Aquajet's goal is to provide much more than that with our extensive training options," Simonsson said. "We connect customers with hydrodemolition experts who not only show them how to safely operate the machine, but also open their eyes to new techniques or applications to optimise their operation. Providing continued training options that go beyond simple operation is important to helping our customers find long term hydrodemolition success."



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Despite governments' best efforts to curb the pandemic, there are no clear signs that the current alobal crisis will be over any time soon. Under such unprecedented circumstances, the excavator attachment industry shows truly remarkable resilience. A number of manufacturers have reported their busiest start to a calendar year ever and there is no shortage of new products being launched onto the market. PDi's Andrei Bushmarin reports on the breaking news from the crusher and screening bucket sector.

Allu pioneers 'side by side' crushing technique

With a 30 year track record in producing crusher and screening buckets, Finland based Allu has pioneered a 'side by side' technique, which involves using both crusher and screening buckets on demolition sites. The technique was first tested on a job site in Finland, which is known for its harsh environment. At this particular site, 85% of the material was screened and partially crushed using an Allu Transformer DH 3-17 XHD screener-crusher bucket, with the leftover hard rock being crushed by an AC 25-37 crusher bucket. The Finnish manufacturer expects this percentage to be even higher in less severe ambient conditions. The debris - some 5,000t in total - resulted from the demolition of two two-storey residential buildings. At the time of the site visit, approximately 600t-700t of concrete waste was still to be processed. The amount of material fed through

the screener-crusher bucket was much higher than that fed through the crusher bucket, with the goal of getting the fines out as accurately as possible by screening. Allu screener-crusher buckets currently feature a basic block type drum with a 75mm hammer, but the company is looking into using more durable and less expensive hammers to halve the cost and at least double the service life.

www.allu.net

Heavy duty CBE series from Simex

The CBE crusher buckets from Italy based trendsetter Simex feature a patented rotor system, which makes them suitable for heavy duty applications such as processing of demolition waste. The toothed rotor activated by the high displacement radial piston hydraulic motors in direct drive generates a very high crushing force. A special valve allows the shaft to automatically invert the

> rotation of the drum when the material, due to hardness or size, cannot be immediately crushed, maximising the crushing force. The shafts on the CBE series are first forged and then cold worked by numerical control centres until they reach required sizes and tolerances. Such a production technique lends itself to more hardness and reliability for this crucial component, which is continuously subject to dynamic stresses during operation. The teeth are wear resistant thanks to special anti-wear treatment.



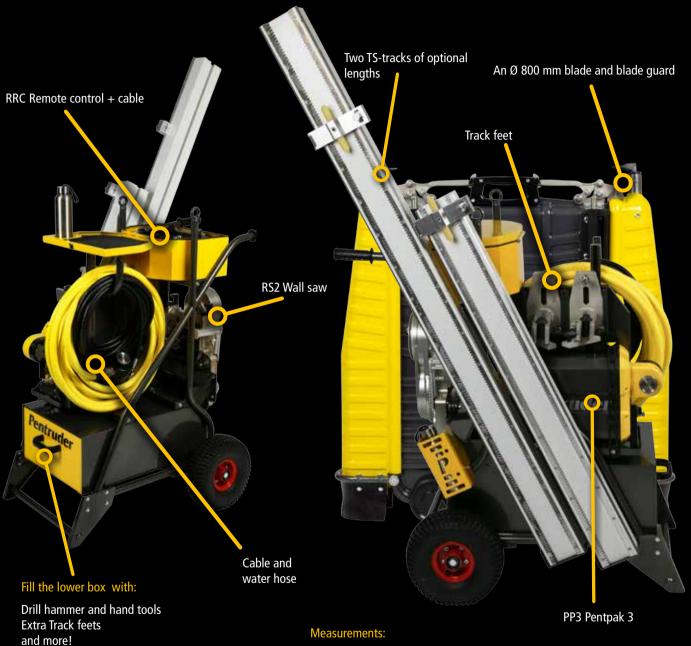


The CBE series is available in five models, ranging from the smallest CBE 10, with an operating weight of 880kg and a bucket capacity of 0.40m3, to the biggest 4.6t CBE 50 boasting a 1.80m3 bucket, to fit 8t to 55t excavators. Last but not least, the buckets' functionality is unaffected by the presence of light or deformable materials such as wood, soil or mud.

www.simex.it



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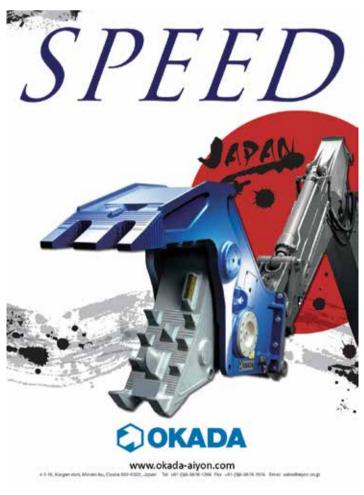


Measurements:

Width: 67 cm Depth: 98 cm Height: 117 cm











MB buckets help customers create new revenue streams

A crusher bucket is an extremely versatile tool that can be used in multiple applications, road construction being one of them. One of the challenges that the road building industry faces on a daily basis is the high costs of hauling and disposing of removed pavement. A crusher bucket, mounted on a carrier of any size and brand, helps overcome this problem. Any asphalt, bitumen or old sidewalk can be crushed down to the required size for immediate reuse, such as base material for a new road. Road building specialists from different parts of the world report the successful application of MB crusher buckets on their projects. A Chile based contractor operated an MB-L200 crusher bucket to recycle material to re-use as sub base, thus generating new material in no time and at zero cost. In Brazil, a company took delivery of a BF70.2 crusher bucket to reclaim asphalt. The landing strips at Reykjavik airport were rebuilt by using the old asphalt as a base material, thanks to a BF70.2 crusher bucket.

www.mbcrusher.com

VTN Europe presents five model crusher bucket range

Another Italian player, VTN Europe, has a five model range of crusher buckets for its customers to choose from. Fitting 12t to 55t carriers, the FB series features adjustable size settings for crushing material from 18mm to 130mm,



an eccentric moving jaw system and an interchangeable crushing jaw kit. Driven by a powerful piston motor, the FB buckets have a centralised greasing system and come fitted with an electromagnet as an optional extra.

www.vtneurope.com

Xava Recycling: screen it like you mean it

Xava Recycling is a relatively new player from Austria that focuses on manufacturing compact electric driven vibrating screens. Established in 2014 by Stefan Löss, who has an extensive background in mechanical engineering, specifically in crushing and screening machinery, Xava has experienced exponential growth in recent years. In 2020, the Austrian company purchased 6,000m² of land to build its own manufacturing facilities and a large 'demo-park' for machine testing. The construction work is currently underway and slated for completion this year. Xava's latest addition to its product portfolio is the LS14X vibrating screen designed primarily for gardening and landscaping applications. Drawing power from a standard 230V socket, the LS14X can also operate from a 220V outlet. This versatile machine allows screening of a wide variety of materials ranging from compost and soil to wood chips and gravel using different types of mesh. The processed material is ready for immediate re-use. Thanks to a purely electric drive system, there is no risk of site contamination by oil

to move around by using a lifting device or chains. Due to its low weight and compact dimensions, the LS14X fits in a regular car trailer. The introduction of the LS14X brings the current number of standard models in the range to five, with tailor made screens also available from the Austrian manufacturer.

www.xava-recycling.at

Trevi extends an olive branch to a Greek customer

The BVR series of screening buckets from Italy based Trevi Benne currently comprises of nine models ranging in operating weight from 110kg to 4.9t to fit 1.5t to 65t excavators. The buckets come with interchangeable perimeter kits that allow separation of the processed material in accordance with the required particle size. Weighing in at 2.5t, the BVR 19e model fitted on a Cat 330B excavator is being employed on a site in Aspropyrgos - just north of Athens - for the reclamation of stony soils to prepare the land for olive plantations. Both the perimeter and bottom nets are made in Hardox 400 steel with 80mm x 80mm dimensions to pick out and remove large stones.

www.trevibenne.it



PDi special feature



Xcentric Ripper is on its A-game

Xcentric Ripper International, based in the Basque country, has added the XS60 model to its XS range of screening buckets designed for 18t to 70t excavators. As with all other models in the XS range, this new attachment is a high performance rotating trommel type bucket. The highlights include a 12-sided polygonal trommel to shake the material up more efficiently, hexagonal profiled screening mesh for maximum yield and homogeneous screening; transmission between the main hydraulic motor and the trommel via a time belt for high torque and maintenance free operation; and the 'Powerboost' system that applies vibration to the rotating trommel for increased productivity. Since vibration is of a high frequency low amplitude kind, it does not affect the mechanical components of either the screener or excavator. Xcentric Ripper International's XC range of crusher buckets was once awarded a 'Accésit Smopyc' prize in the category 'Innovation on equipment, components and auxiliary resources' at the Smopyc trade show in Zaragoza back in 2017. Following up on that accomplishment, the Spanish manufacturer has developed a new 'Series A' of maintenance free crushers, consisting of 12 models for 8t to 50t excavators. Compared to the forerunning series, the new buckets feature a different mechanical system and much simpler internal assembly. A new granulometry adjustment system offers a bigger choice of output sizes. The absence of a drain line in the hydraulic motors and the flow control valve make the attachments easily interchangeable between excavators, with a low risk of failure in case of poor hydraulic adjustment. The maintenance free power train increases machine reliability in the long term. The bucket can be fully opened, which makes jaw replacement very easy.

www.xcentricripper.com

Meet 'Gyru-Star' compact screening systems

UK based Wheatway Solutions specialises in designing and manufacturing of excavator attachments for the recycling industry. The company owns a number of brands, which include 'Kustom Konnect' (specialist interfaces), 'Liftow' (lifting and towing equipment) and

Gyru-Star. The Gyru-Star compact screening systems are bucket type attachments used primarily for screening soil, compost and aggregates. They can be fitted on to excavators, tractors, telehandlers, compact loaders, wheeled or tracked loaders and skid steers, replacing a standard digging bucket. The company offers six ranges comprising of E, HE, HDX, MAX, L and SL suitable for 1t-30t excavators. Three different fragment kits are available for each model enabling customers to achieve the desired fragment size, with the options being: nominal 20-0mm, nominal 15-0mm and nominal 10-0mm. The bucket shafts are packed with flexible polyurethane stars, which in operation rotate creating a rolling action, which keeps the material fluid. The bucket screens the material due to the rolling action agitating the material allowing the fines to fall through the gaps in the stars, with the gap size being different per

fragment reduction kit. When employed in landscape renovation, the Gyru-Star screening buckets remove stones, vegetation and oversized particles to prepare the soil to be reused. Once screened, the topsoil can then be used to level out sports fields, pitches and gardens to create raised beds and improve the existing soil quality. The Gyru-Star buckets screen materials without crushing, which makes them suitable for pipeline and cable padding as there are no sharp stones or fragments in the screened material. These compact screening systems can also be used to screen demolition waste before crushing. And last but not least, they are used to separate compostable and non-compostable items. The latest addition to the Gyru-Star family is the 'MAX buckets'. The new buckets boast a longer, wider cutting edge and non-stick floor. A special design makes it easier to pick up longer smaller piles of material, which is perfect for padding and backfilling where the buckets can screen directly into the trench. The range currently comprises of eight models.

www.wheatway.com

Mantovanibenne features the MVR series

The MVR series of screening buckets from Italy based Mantovanibenne is available in six sizes to fit 3t to 40t carriers. The attachment's sturdy body is made of high resistance steel to protect the rotation motor and the screening basket. The support rollers are adjustable and keep the basket perfectly aligned with the rotation motor, thus avoiding stress on the moving parts. Different baskets sieves can be interchanged according to the type and dimension of the materials being separated. Baskets are available with hole size ranging from 30mm to 180mm. On a customer's request, the bucket's front edge can be equipped with teeth or blades.

www.mantovanibenne.com





	2500W (220V) 2200W (110V)
Capacity	202 mm



DME52D

Dry Drilling Motor with External Dust Extraction

	1800W (220V) 1800W (110V)	
Capacity	182 mm	

DMC6P

Wet & Dry Drilling Motor

	2000W (220V) 1700W (110V) 182 mm	
Capacity		

DM62

Dry Drilling Motor for Reinforced Concrete

Power Input	2000W (220V) 1700W (110V)	
Capacity	1	STATE
Brick		262 mm
Reinforced Concrete		162 mm



Ecomondo to be held at the Rimini Expo Centre 26 to 29 October 2021

Ecomondo and Key Energy are two expositions dedicated to the circular bioeconomy and renewable energy sectors; they will once again be held 'live' in October of this year following the 2020 digital edition. The two expos, organised by Italian Exhibition Group, are returning with the goal of providing the business community with a place for discussions and networking opportunities on new sustainable de-velopment models and climate change. Ecomondo and Key Energy, which will occupy almost 130,000m² of the Rimini Expo Centre, are divided into a specific layout that favours institutional and business relations. Waste and resources, remediation and hydrogeological risks, circular bioeconomy and water are the main areas for Ecomondo, whilst renewables, storage and distributed generation, energy efficiency and 'smart cities' are Key Energy's sectors of interest.

Steinexpo put back to 2023



New cordless power cutter from Makita

The Makita XEC01PT1 18V X2 (36V) LXT brushless 228mm cordless power cutter has been designed to cut through metal and masonry. It has a maximum cutting depth of 76.2mm and can cut through a standard residential concrete slab in a single pass. Besides concrete, it has the power to cut through I-beams, steel pipes, rebar, metal studs and much more. The main benefits of a cordless power cutter over a gas power cutter are said by the manufacturer to include no oil/gas mixing, no emissions, no pull starts, no engine maintenance, and a lighter weight. For users this means reduced operator fatigue, instant starts, cost savings, and the ability to use the power cutter indoors, in tight spaces and at high elevations. For rental businesses, this means lower maintenance and no engine failure due to improper fuel mixing.

For dust management, the XEC01 includes an integrated water delivery system for continuous water feed, with water flow being controlled with an adjustment knob. Added features include a belt-drive design

for smoother operation with lower vibration. The XEC01 has a purpose built BL brushless motor, which eliminates carbon brushes and enables the motor to run cooler and more efficiently for longer life. The brushless motor delivers 6,600RPM. 'Active Feedback-sensing Technology' (AFT) turns the motor off if rotation of the wheel is suddenly forced to stop. An electric brake stops the wheel in four seconds or less allowing for faster repositioning. It is also equipped with 'Extreme Protection Technology' (XPT) which is designed to improve a tool's operation in harsh conditions by channelling water and dust from key internal components.

The new power cutter is part of Makita's expanding 18V LXT System, said to be the world's largest cordless tool system powered by 18V lithium-ion slide style batteries. Makita 18V LXT lithium-ion batteries are also said to have the fastest charge times in their categories, resulting in more time working and less time sitting on the charger.

SaMoTer put back to 2023

SaMoTer, Veronafiere's triennial international construction machinery exhibition, has been postponed due to Covid-19. Scheduled to be held from 3 to 7 March 2021, it will now be held in 2023, "This was an inevitable yet carefully analysed and widely shared decision," said Giovanni Mantovani, CEO of Veronafiere. "The scenario associated with the pandemic is still very uncertain. Consequently, in agreement with manufacturers and sector associations, we have identified a new positioning in line with the needs of this industry as well as the calendar of other specialised trade fairs in Europe. At the same time, we are well aware of the importance

for companies of having live occasions for presenting their latest developments to the Italian market. We have therefore decided to organise a dynamic new 'run-up' event in autumn 2021." The latter will consist of a demonstration themed event held in a quarry, with construction machinery and equipment operating 'live' from 30 September to 2 October 2021. This is scheduled to occur at same time as Marmomac, the trade fair for the natural stone supply and value chain thereby creating the opportunity to develop important synergies between industry sectors.

www.samoter.com

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The new Dynaset HPW 160 IDEAL FOR DUST CONTROL

Dynaset's HPW hydraulic high pressure water pump range has a new pump model, HPW 160. This is specially designed to power up HPW dust applications, with 'HPW Dust' being a product family for dust control in the demolition and mining industries. The new pump can be also used for power washing applications.

The most obvious thing that differs from other HPW pump models is the power output. The new pump produces 160bar pressure and a flow of 18l/min. Another major difference to other pumps is a brand new piston model which has made the new release extremely compact as its structure has been simplified. The new pump is the smallest member of the HPW line up in dimensions with a height of only 110mm, width of 210mm and a length of 100mm. Even though the dimensions are highly compact, the output power of 4.8kW still exceeds most the electric power washers.

The new HPW 160 is especially designed for dust control applications. It can be used, for example, for street sweeper dust control and for dust suppression on small pulverisers and drilling rigs. It is available in three different versions as with the existing pump models. The first is a basic model without any additional valves. The second has a water unloader valve which makes power washing application possible with the pump. The third model is the VR-PA model which has a special valve that ensures that the hydraulic oil flow won't exceed the set value.



For the last 30 years, Allu has been producing screening buckets for 10t to 38t machines as well as recently launching a crusher. Allu has now placed its two solutions side by side to provide demolition sites with increased capacity.

When first tested by a Finnish customer, the crusher and screener combination, operating side by side, was reported to have made a dramatic improvement. At the site, 85% of material was screened and also partially crushed through a screener-crusher bucket (Allu Transformer DH 3-17 XHD) with only the excess very hard material being crushed with a crusher bucket (Allu Crusher AC 25-37), "The demolition concrete was treated after pulverisation with two Allu's. The excess obtained from the screener-crusher bucket was crushed to a 90mm fraction with a crusher bucket. Thus, a total of about 5,000t passed through two buckets.

"The demolition of two, two story residential buildings produced a total of about 5,000t of concrete. The maximum fraction size achieved in the pulverisation was 400mm, which is a maximum good input feed size for the Allu crusher bucket.

The jaw is reversible, which enables fast and easy recovery from possible blockages. In my 30 years in the industry this has changed the direction for demolition," said Ilpo Ellonen, regional sales manager, Allu Finland Oy.

The demolition took a total of three weeks. At the time of the visit to the site, approximately 700t of concrete waste were still untreated. Some of the crushed concrete will be used at the bottom of the forest road, with the purpose of the (crushing and screening) process being to recycle concrete waste into stone aggregate for reuse. This will then replace the need to use (and buy in) virgin aggregate, providing an environmentally sustainable solution.

Allu states that the throughput of material from the screener-crusher bucket is many times higher than solely with the crusher bucket. Hence the goal at the Finnish demolition site was to extract fines out as accurately as possible by screening so that the amount of material to be crushed is kept to a minimum. The screener-crusher bucket was fitted with a basic block type drum with a 75mm hammer configuration which Allu states removes the requirement for more expensive hammer options.



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The Tuytel Group relies on Lindner's Urraco series 75 and 95 to process waste wood grades A1 to A4 for subsequent shipping. Jan Arie van der Meijden, the person responsible for recycling technology at Tuytel, states: 'We don't want to change or screw on knives every day to obtain a clean fraction without any irritating oversized particles. With the Urracos we easily manage to shred for 600 to 700 hours without having to deal with the cutting unit. The machine operator can concentrate on feeding and the machine produces a whole lot of perfectly sized final output at a throughput rate of up to 65 metric tons per hour.' More information: www.lindner.com





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TIME TO LEARN A **NEW DRIL**

After a catastrophic 2020, the New Year brings fresh hope to the concrete sawing and drilling industry. A number of players PDi spoke to in the first weeks of 2021 reported signs of recovery, albeit weak. Sales are gradually improving, even international ones. One can't say there is an avalanche of new products on the market but the situation is far from a drought either. Andrei Bushmarin has breaking news from the core drilling business.

AGP expands both dry and wet ranges

Taiwan based power tool specialist AGP has expanded its range of drill motors for dry applications with the addition of two new models. The DME51D is a 1.8kW drill motor designed primarily for electricians. Weighing in at just 4.7kg, this powerful single speed machine features soft percussion and external dust collection for coring in highly abrasive materials. Its speed is optimised for 82mm dry drilling, with a maximum possible diameter of 102mm. The external dust collector keeps fine dust away from the spindle and gear case while providing efficient dust extraction. Having considered customer feedback on the difficulty of removing core drills with conventional dust extractors, AGP has designed a model that users can open from one side to remove the core bit directly.

Another new machine for dry coring is the 1.8kW DME52D, which comes with an external dust collector for extra fine dust. It features a two speed gearbox for up



Husqvarna introduces four new drill motors

In the watershed year of 2020, Husqvarna busied itself with product development. The Swedish trendsetter designed and launched a total of four new drill motors. The smallest, DM 200, is a sturdy and versatile Dhandle drill motor optimised for hand held drilling of holes from 30mm to 80mm in diameter. The machine is suitable for both wet and dry applications. The DM 200 casing is made of impact proof polyamide plastic with a ball valve coupling for wet coring, vacuum coupling for dry applications, detachable front handle, wrenches and a user manual. Operators can adapt the spindle speed and torque to any drilling diameter between 30mm and 80mm via a two speed gear selector.

Also new from Husqvarna are the DM 400 and DM 430 drill motors. Both models feature a durable aluminium casing and a compact design, which facilitates drilling in narrow corners. "The new DM 400/DM 430 are designed for heavy duty drilling jobs" says Håkan Pinzani, global product manager for core drilling systems at Husqvarna. The machines boast such trademark Husqvarna features as the LED load indicator, the 'SmartStart' (half speed) button, and a quick fastening system to the DS 500 stand. A

three speed gearbox allows users to adjust RPM in the diameter range from 55mm to 350mm in the case of the DM 400, and from 100mm to 450mm for the DM 430. An air cooled heavy duty electric motor is designed to withstand high loads without overheating. To protect the motor and gearbox in case of the core bit's jamming, the DM 400/DM 430 are equipped with two independent systems: a mechanical friction clutch and the Husqvarna 'Elgard' electronic motor overload protection system. Both models feature 'Embedded Connectivity' - an enhanced version of Husqvarna 'Fleet Services' – being available as of February 2020.

Last but not least is the DM 700 drill motor, which is Husqvarna's newest addition to its high frequency 'Prime range'. Weighing in at 13.6kg, the 6kW model features a permanent magnet high frequency motor which is absolutely maintenance free. One of the DM 700's highlights is the updated motor control software, which works with two speed transmission to optimise RPM for drill bits from 80mm to 600mm in diameter. The motor is water cooled and has no air intake slots to prevent ingress of dust, moisture or dirt.

www.husqvarna.com



to 182mm drilling and a soft percussion function. Also new from the Taiwanese manufacturer is the DMC160 wet drilling motor with a three speed oil bath magnesium gearbox. An economy class model, it nevertheless comes with a powerful 2200W motor with electronic safety features and a LED indicator for maximum work-

ing efficiency. The machine is designed for up to 162mm wet drilling jobs, but it can also be used for dry coring of up to 182mm in diameter. Thanks to the brass quick release couplings, the conversion between the wet and dry modes is easy and tool free.

www.agp-powertools.com

PDi special feature



Baier launches new dry system and cordless socket sinker

Based in Stuttgart, Germany, Baier Tools has been producing high quality power tools for over 80 years. Currently the company exports its drilling and cutting solutions to more than 60 countries, with Baier considering dry coring to be its main area of expertise. The German manufacturer has recently added the new BDB8295, a rig based system with high torque and RPM that permits dry coring of up to 300mm holes in diameter to its range. This already includes the BDB825 drill motor for up to 160mm jobs, and the BDB829 with a maximum drilling diameter of 250mm. Also, as a partner of CAS (Cordless Alliance System), Baier offers the cordless socket sinker with integrated dust suction and its trademark soft impact system.

www.baier-tools.com

Cuts Inc. ingenious drilling solution helps renovate Tennessee's water system

In the winter of 2019, fortifications at the Kuwahee wastewater treatment plant in Knoxville Tennessee were specified. The renovation plan called for new pier openings to be cut in a 914mm concrete slab with #10 rebar reinforcements. The entire slab was filled with muddy water as ground water continued to seep into the tank from the Tennessee River located just meters away. The muddy water, nearby grouting operations, and previous contaminants made for very difficult conditions to operate conventional core drilling equipment. Cuts Inc. used a skid steer core drill attachment that had been developed for another project during previous modifications to the Tennessee Valley Authority systems' of dams. That project required drilling multiple 457mm diameter holes by 1.524mm depth from within existing 50mm deep square holes. This also limited the use of conventional core drill equipment due to space restrictions. Both jobs were completed with ease using a custom made control panel, which automatically feeds the drill into the concrete while adjusting auto feed pressure for maximum speed.

www.cutsinc.org





Hycon HCD drill makes any mission possible

In late January 2020, True-Line Coring & Cutting, based in Tampa, Florida, was given a daunting task of extracting a 10m concrete sample from a fully cast reinforced concrete pile. The US contractor suggested doing it in the handheld mode, which many in the drilling business would consider as a 'mission impossible'. But True-Line Coring & Cutting had every faith in the capabilities of the HCD drill from the Danish manufacturer Hycon, having used it successfully in the past. Two piles had to be sample tested by drilling a 50mm hole to a depth of 10m. The drilling took True-Line Coring & Cutting approximately 4.5h using continuous tubing core bits. The operator did a splendid job by drilling so accurately and precisely that no rebar were damaged on the entire length of the sample. The Hycon HCD drill, too, passed the test with flying colours. This lightweight, compact and low vibration machine is unaffected by water and dust and can be used for underwater drilling as well.

www.hvcon.dk



Cuttronix CM-10 shines on drilling jobs in Moscow

Diamondtech Construction, a Moscow based specialist contractor, used a Cuttronix CM-10 core drilling system from the Estonian manufacturer Kaskod on two challenging drilling projects in Moscow. One involved drilling holes for cast in situ piles at the Kurskaya train station and the other for a building's foundations in 'Moscow-City', a fast growing business district in the Russian capital. Both jobs required angle drilling of 200mm-250mm holes to a depth of 1m-1.2m. The drilling had to be done in phases to a very tight schedule. To fulfil the task, the Russian contractor opted for a powerful brushless 15kW electric Cuttronix motor. The coring of 225mm holes in 1m thick heavily reinforced concrete took between 10/20min (depending on the rebar concentration), with an average segment lifespan reaching 12m. Overall, more than 500 holes were drilled using only one rig and two operators.

www.cuttronix.com

Hilti extends 'Cut-Assist' technology to two new models

Lichtenstein based heavyweight Hilti keeps updating its fleet with the patented 'Cut-Assist' technology. Both of the manufacturer's new drilling systems - the compact multifunctional DD 150-U and the powerful heavyduty DD 250-CA - feature such popular 'Cut-Assist' functions as base material search, electric starting aid, automatic water on/off and breakthrough detection. Another highlight is the digital display through which the operator controls the auto feed units. The display shows all operational parameters in real time and stores statistics for future reference. All data can be transferred to a mobile app so users could track down and analyse the usage history of the equipment.

www.hilti.com



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SIR becomes a new member of EWJI

SIR, a safety organisation in the Netherlands and Belgium, has joined the European Water Jetting Institute (EWJI) as a new member.

The Stichting Industriële Reiniging (Industrial Cleaning Foundation - SIR) aims to promote and regulate safe working in industrial cleaning. It combines and protects these interests in the Netherlands and, since 2003, Belgium. In order to achieve the goal of working as safely as possible in industrial cleaning, SIR is active in a number of areas, with the most important being to lay down guidelines in cooperation with all the parties in the sector. The SIR sphere of activity covers high pressure cleaning, pressure vacuum cleaning, industrial chemical cleaning and respiratory protection (life

The organisation also plays a role in encouraging the development of safe equipment and is involved in the development of safe working methods. SIR regularly adapts its guidelines to the latest developments in the trade. The network of committees and working groups, in which representatives from all the sectors in the trade participate, ensure that developments in the fields of activity are incorporated into regulations, training courses and examinations.



PaveScan 2.0 incorporates a new sensor design built specifically for the extremes of the asphalt paving environment. It features foldable deployment arms and has a warm up time of under one minute when ambient temperature is over approximately 21°. PaveScan RDM is suited 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 raveling, 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 as a means to correlate percentage voids and density in a new pavement. The innovative technology enables users to obtain critical density data for the QA/QC of new pavements. GSSI states that PaveScan does not result in any site hazards or require closing off work areas. Integrating with GPS systems, PaveScan features a modular design that facilitates efficient operation and data collection. It is offered as a single sensor or a three sensor cart based configuration. This pavement density measurement technology is an accepted American Association of State and Highway Transportation Officials specification, PP 98-19.



HIGHLY EFFICIENT PRE-SCREENING

for higher crusher throughput and operating lower costs

Crushers can be used to crush a huge selection of materials, covering a wide range of applications, from recycling to natural stone. Often the crusher is fed with a high proportion of fine material, which unnecessarily passes through the crushing process, increasing wear and energy consumption while reducing throughput.

As a remedy, a bar mesh is normally used for prescreening. However, if the fine material is damp and cohesive, it can quickly clog up the mesh screen and ends up passing through the crusher anyway. To counter this, Rubble Master has launched the patented RM 'Active Grid', a new highly efficient pre-screen that increases material throughput by up to 30% and reduces wear.

C&D waste, concrete rubble, asphalt, wall and river gravel are just a few examples where a high proportion of fine particles can be found in the feed material. If a pre-screening system is not used, all the material ends up in the crusher, irrespective of particle size, often passing through the whole crushing process. Unfortunately, the fine material causes unnecessary wear to the hammers, impact plates and wear plates in the crushing box, as well as higher energy consumption in the form of diesel or electricity, as the rotor is subjected to higher stress. The result is higher running costs as the hammers and wear plates need to be replaced more frequently, and maintenance cycles are shorter. This not only reduces the efficiency of the crusher, but also reduces profit, because material throughput is lower, but running costs are higher.

Conventional bar mesh

In many cases a bar mesh is used for pre-screening the fine material and small particles. So far so good, except that the bar mesh has the disadvantage that due to its rigid construction it clogs up over time, especially with damp, sticky or loamy, cohesive material, which reduces pre-screening efficiency. Even with dry material, the screening rate is often not ideal. This again causes most of the material to enter the crushing box, or block the inlet to the crushing box, slowing down the flow of material. This has the effect of reducing crusher throughput, increasing wear and requiring the crusher to stop so that the bar mesh can be cleaned.

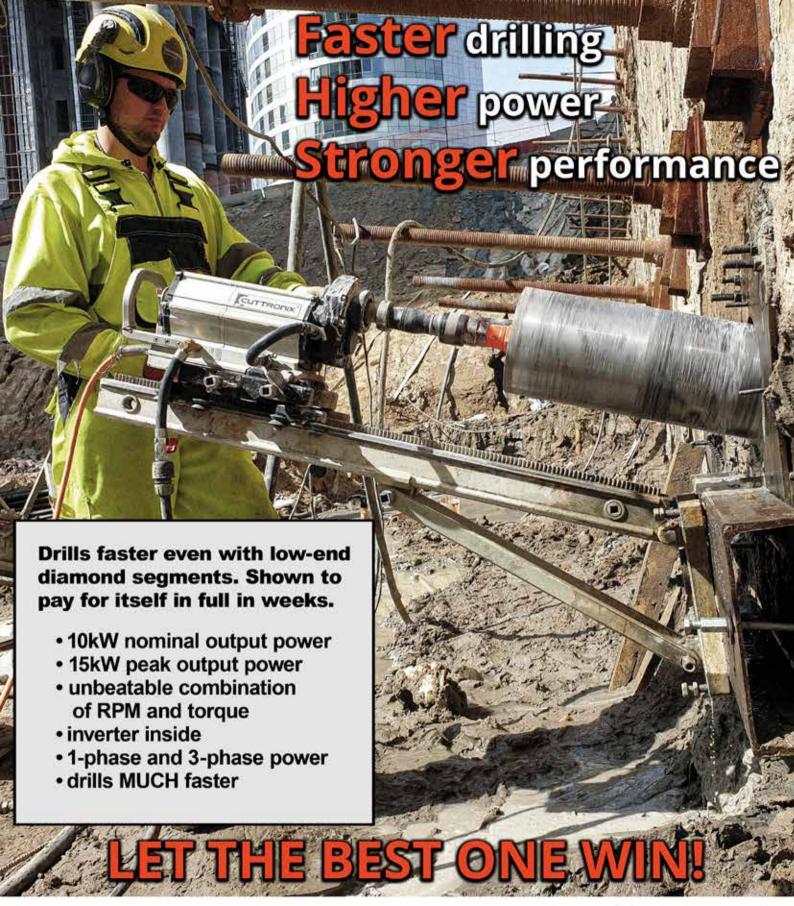
Patented RM Active Grid

Rubble Master developed the RM Active Grid to solve the problems described above. It consists of rigid and movable sections of bar mesh that feature a special configuration. The vibration of the vibro- channel causes the Active Grid to oscillate, so it does not need its own drive system. The active vibration of one section of the bar mesh significantly increases screening performance and, depending on the material and the type of job, increases the total material throughput by up to 30%. Efficiency is also increased thanks to the self-cleaning effect of the Active Grid, ensuring consistent screening performance. The fine material can then bypass the crushing box onto the main discharge belt, or be discharged on a side discharge belt.

The result is more material throughput, less wear, lower costs and longer maintenance intervals, which ultimately adds up to more productivity and profitability. If pre-screening is not required because the crusher is being used for a different application, the RM Active Grid can also be fitted with a subfloor, which is quickly installed. The RM Active Grid is available for RM 100GO! and RM 120X crushers.

Just one pre-screen and scalper options

Because processing requirements vary greatly from one job to another, Rubble Master offers a range of solutions for pre-screening. In addition to the RM Active Grid and a standard bar mesh, a two deck pre-screen integrated into the feed belt is also offered for defined feed material particle sizes. RM also offers the HS series of mobile prescreens, which are available in a range of sizes.











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Combined Epiroc power contribute to a successful bridge demolition

Following a tanker accident on the A40 motorway just under the railway bridges in Mülheim-Styrum in September 2020, experts determined that the traffic safety of the structures was no longer assured. The devastating tanker fire had caused massive and irreparable damage to the bridges and demolition was unavoidable. But both important railway lines and the heavily frequented city motorway had to be completely closed for the work, at times placing enormous pressure on companies responsible for the demolition.

Albert Horn from Hückelhoven was responsible for the large scale use of seven demolition excavators. It was supported by Vortmann Baumaschinen from Marl, Heermann Abbruch from Gescher and Köster Abbruch from Haltern am See, and above all, by its valued partner Epiroc, who ensured a smooth and efficient process with five quality machines. Epiroc's chosen partner in this case was A.B.T. Abbruchtechnik from Billerbeck, who delivered and maintained Epiroc demolition tools quickly and reliably.

Epiroc impresses across the board

Bright and early at 6am on Saturday, a large supply of construction machines arrived at the fully closed A40 to complete the work which had to be undertaken in a time lapse fashion. A total of seven excavators took on the two demolition ready railway bridges at the same time, with each weighing 1,800t, requiring the impressive and efficient operation of the Epiroc products. The two CB 7500 and CC 5000 demolition cutters broke off enormous concrete sections without any loss of power, while the three hydraulic breakers HB 7000, HB 5800

and HB 4700, demonstrated high impact force with low vibration. Thanks to the parallel use of numerous quality machines, the work was successfully completed by the Tuesday afternoon, much to the delight of local residents and road users. Around 2,000 m³ of material was moved during the operation on just one weekend which required 200 truckloads to remove the debris.

Powerful in every application

The challenging bridge demolition gave Epiroc the opportunity to demonstrate the well-known advantages of its attachment tools, with both the demolition cutters and hydraulic breakers impressing. The CB 7500 concrete demolition crusher is designed for primary demolition of wide reinforced concrete structures and proved to be an excellent choice for the long reach or long boom applications due to its comparatively low weight. The wide jaw openings and high breaking forces were ideal for demolishing the thick concrete bridges. The CC 5000 demolition cutter also impressed with its modular design, easy maintenance and a combination of high crushing force, short cycle times and high reliability, with both devices being able to be rotated 360° for excellent handling.

Three hydraulic breakers, types HB 7000, HB 5800 and HB 4700, were also used on the A40, displaying flexibility in use and quiet, low vibration; attributes that are extremely helpful in a time consuming large construction site located in the middle of the city. The unique solid body concept provides high reliability, versatility, high efficiency and performance, and is known for its maintenance friendly design. The recoil force of the piston is automatically used to increase the power, without additional hydraulic energy, meaning that stress from vibrations is extremely low. The air and water inlet, which is used to connect a compressed air supply and an integrated water channel for dust suppression, is also operator friendly. The advanced control technology is particularly impressive as the performance of the demolition hammer is optimised by 'AutoControl', an automatic stroke length switching. The automatic lubrication system 'ContiLube II', the patented dust protection system 'DustProtector II' and the redesigned service opening all improve the longevity of components.



Possibly the largest retention basin in Austria is currently being built in Triestingtal (Lower Austria) with engineers from the company PORR being given the task of installing a diaphragm wall along the centre line of the dam during the construction phase. For this project, it was decided to try a KSI injection attachment from the German manufacturer Kemroc fitted to a modified excavator.

In the future, when the Triesting, a river flowing through south eastern Wienerwald in Lower Austria, floods after heavy rains, people living around Fahrafeld in the district of Pottenstein should find themselves better protected from the flood waters. A massive water retention basin is being built there for this purpose. With a capacity of 725,000 m³, the basin is intended to protect the community and the infrastructure. The construction company

PORR is currently building a dam, approximately 10m high, to hold the flood water. The dam consists of two side sections about 1,300m long with the basin located between the riverbed and railway lines. The sides are connected to one another with a transvers dam about 150m long. The main structural element of the dam is a diaphragm wall made of a soil-cement mixture which is firmly anchored into the solid rock below the dam.

Under the topsoil, the local geology consists of various layers of loose rock lying on a bed of compact limestone. To create a sturdy diaphragm wall in this material, the specialists at PORR decided to use equipment they had not tried before. They chose to use a KSI injection excavator attachment designed and manufactured by Kemroc. The attachment has a long

blade with a cutting chain that can grind its way down through the earth and rock. It can then mix the broken material with a cement suspension pumped via hoses from a semi mobile mixing plant. When hardened, the soil cement mixture produces a dense, structurally sound, impermeable structure.

By October 2020, PORR was halfway through the first phase of construction of the retention basin. The southern section of the dam running alongside railway tracks had been completed together with the soil cement diaphragm wall which had been constructed using a large excavator with the KSI mixing attachment. Wear on the blade chain for the 1,300m length of diaphragm wall was extremely low. Only 25 cutter teeth had to be replaced on the excavator attachment.

In the next phase of construction, the actual dam, which is about 10m high, is being built up stage by stage. The soil-cement diaphragm wall will then be installed while working from the top of the dam. It will connect to the existing diaphragm wall located in the overburden below. For this section, the big brother to the KSI 5000 will be used, namely the KSI 10000 with an impressive 10m long mixing blade. PORR is confident that this machine will also perform satisfactorily when mounted on one of its excavators and provide a cost effective alternative to other, more expensive civil engineering methods.



New PC88MR-11 midi excavator

The new Komatsu PC88MR-11 midi excavator builds on the solid foundations of the hugely successful PC-88MR-10 to bring more customer value to the midi excavator sector. The PC88MR-11's new features are said to deliver a significant boost to productivity, reduced fuel consumption and faster work equipment speed.

The PC88MR-11 takes full advantage of Komatsu group knowhow to offer high levels of versatility, ease of buying and increased efficiency with the factory fitted 'Lehnhoff Powertilt' option in direct response to growing environmental concerns with urban areas becoming increasingly sensitive to emissions. The PC88MR-11's low consumption and powerful EU Stage V engine (50.7kW) provides customers with the opportunity to participate in any tender, demonstrate environmental credentials and 'future-proof' their investment.

A tight tail swing lets the operator concentrate on the work at hand, with no worry about rear swing impacts, helping to make the PC88MR-11 a versatile solution, ideal for use even in confined areas. The external design is also improved with an all-new MR-11 cutting edge styling. The new PC88MR-11 offers what is said to be 'first class' operator comfort, smart safety initiatives, intuitive ergonomics, huge advances in performance and controllability and easy serviceability. Peace of mind is provided through a proven Komatsu after treatment system, and what Komatsu says are the highest levels of standard specifications in the industry.

Operators will find improvements everywhere on the excavator: a redesigned blade for better dozing, the repositioning of the low/high gear switch for better ergonomic, or an automatic change over valve for higher levels of comfort when changing attachments. These are said will be appreciated by current and new users alike.

Simone Reddi, Komatsu Europe product manager for midi excavators, says: "This is not just a simple model update. The PC88MR-11 introduces several improvements in digging performances and structure. The whole dig-loading cycle is improved, increasing production, giving the feeling of a faster machine. Last but not least, this latest Komatsu midi excavator features the European debut of the brand new EU Stage V Komatsu 2.4l engine with KDPF (no SCR needed). Enjoy lower fuel consumption, higher performances and unrivalled efficiency."





OUTSTANDING PERFORMANCE

during the first use of the CC 3700

In Taufkirchen (Vils), Ottl Abbruch & Rückbau GmbH was responsible for selectively dismantling an old school building. Its location in the middle of a residential area required low noise and low vibration work, with the demolition specialist securing the support of its longstanding partner, Epiroc, for this challenge. This saw a new CC 3700 combi cutter supplementing the existing pool of Epiroc attachments used by the company.

Several school buildings from the 1970s had to make room for a new building in the municipality of Taufkirchen in southern Germany. A specialist company was commissioned to undertake the work, Ottl Abbruch & Rückbau GmbH from Alling in the district of Fürstenfeldbruck, which required the dismantling and other associated tasks located in the heart of a residential area. With its mix of experienced and highly qualified employees, as well as a well maintained machinery fleet, Ottl is one of the leading demolition companies in the greater Munich area, and as such, the company relies a reliable, high performance partner that delivers high quality and efficient excavator attachments. "We found this partner in Epiroc," states Herbert Schiefer, technical manager at Ottl. Both companies have known and valued each other for many years, with the renewed successful cooperation being a highly logical result.

CC 3700 makes short work of the large construction site

Over a period of nine months, over 27,000m3 of building space had to be demolished and restored in Taufkirchen. Although the school buildings, gymnasiums and assembly halls generally had the same design, they differed in terms of the height and type of roof construction, meaning that suitable specialist equipment was required. The main building consisted of a reinforced concrete skeleton construction with masonry infill. Due to its height of approximately 18m and high concrete quality, a compromise had to be found between

excavator and attachment tool. In this case, the decision makers opted for a Hitachi ZX 800 long-front excavator combined with a CC 3700 Epiroc demolition crusher. The latter was used by Ottl for the first time, with the company's technical manager, Herbert Schiefer, being impressed: "That was exactly the right decision. The concrete had no chance against the CC 3700."

The former gymnasium, on the other hand, had a flat roof construction as a special feature, which had to be accounted for during the dismantling work. Here, a Hitachi ZX 300 track excavator with a CC 2500 Epiroc combi cutter and a Cat 336 with a CC 3300. were successfully used for the demolition work. Epiroc multi grapples and hydraulic breakers were also used on the large construction site.

Impressive quality and outstanding service

Epiroc products are used extensively by the global construction industry, with the demolition work in Taufkirchen demonstrating the attributes of the equipment. Even in the middle of the residential area, the high quality attachments ensured that comparatively low noise and vibration levels were maintained during the work. The CC 3700 demolition cutter, along with the other cutters in the portfolio, impressed with its modular design, easy maintenance, quick replacement of its universal steel cutting and pulverising jaws, as well as delivering high crushing force, short cycle times and high reliability. The devices can be rotated 360° for extensive handling whilst special protective equipment protects the hydraulic cylinder.



Hilti offers comprehensive core drilling product portfolios

With drill motors, stands and a broad core bit programme, Hilti also offers a wide range of accessories. These include the DD VP-U vacuum pump, the DD WMS 100 water management system and the DD-AF CA auto feed unit for the high frequency motors DD 350-CA and DD 500-CA. At the centre of the product programme stand the compact, multifunctional DD 150-U and the powerful heavy duty DD 250-CA systems, both of which will see an impressive package of new functionalities added in May 2021.

Hilti aims to spread the word about its 'Cut-Assist' technology. The new units include the popular DD-AF CA functions such as base material search, electric starting aid, and automatic water on/off and break through detection to the new units, but go beyond and bring impressive, exceptional features to market. Both drill motors are equipped with digital displays as a user interface, with the auto feed units being controlled and operated via these. The systems recognise the start and completion of every hole displaying actual drilling depth during drilling and collecting total depth in their user statistics, aiding detecting, tracking and registering drilling depth.

Hilti not only offers drilling motors but also all electric devices needed while coring. The company believes there is immense potential for improved productivity in assisting the user by using such tools to exchange information and optimise activities. The water management system DD-WMS 100, diamond drilling systems DD 150-U and DD 250-CA and auto feed units DD AF-CA L and DD AF-CA H are connected via Bluetooth

to self-optimising local equipment networks. The entire system is controlled by the digital displays of the drilling tools, with the facility to monitor progress while carrying out other tasks. The user is instantly notified about any change in the status of tools while the system is automatically taking measures to avoid downtime, such as through loss of cooling water or stuck core bits.

Hilti has used LEDs on its tools for a long time to help users while working. The DD 150-U and DD 250-CA now offer digital displays so that users can do even better and more. A flow of functions and screens guide the user through the application steps from set up to drilling and the tracking of the work that has been done. A gear selection aid, digital spirit level, electric starting aid, real time contact force controls and easy to understand service messages make the work easier and increase productivity. In combination with a mobile device, an app helps to better understand and register the usage history of the tools.



Ramtec Attachment updates the DG demolition grapples product range

The Finnish company Ramtec Attachment, located in Lahti, is a manufacturer of the high quality Robi, Hytera and Kenguru attachments for excavators and wheel loaders. The Robi product family consists of demolition and handling grapples, crushers, screening buckets, hydraulic breakers and excavator buckets.

The Ramtec DG demolition grapple range is aimed at material handling duties in sorting, recycling and light demolition jobs featuring bricks and wood. There are five models in the range for carriers ranging from 3t to 42t. The grapple is light enough for long reach applications, and due to its wear resistant materials and wear plates, is reliable and easy to use. DG grapples have 3600 rotation and when higher torque for rotation is needed, there is a double motor option available for the three largest models. If an existing tilt rotator is to be used, the DG grapples can be delivered without a Robi rotation unit.

Three versions of jaws are available depending on the application. Jaws are made of ribs, plates with holes for the small grain size or solid plate, all equal in strength. The latest updated models, DG16R and DG21R, are the next development in the DG series and will replace the old models, DG15R and DG20R. The redesign came after customer driven product development leading to a more robust body, optimised structure and stronger cylinder. The cylinder delivers optimum force distribution on the grapple jaws. Both of the models have maintenance free bearings in main joints to reduce greasing and to increase productivity.

www.ramtec.fi

New appointment at MBI



MBI is pleased to announce the appointment of Dominik Erath as its new business development and export manager. His main task will be to develop and implement an international sales strategy, to lead the sales team and to manage all international sales activities for MBI. Dominik has almost 20 years of experience in scrap and demolition attachments all over the world, providing him with the experience and know how in dealing with major companies, negotiating contracts and acquiring new customers and strategic partners. He is looking forward to building up long lasting and trusted relationships with customers and partners. All at MBI wish him the best in his new role.

'No use of water' more than just a trend

Core drilling in reinforced concrete without the use of water, with soft impact and dust extraction, is far more than just a trend. This can currently be witnessed at first sight on social media, as in almost all relevant Facebook groups or on Instagram, concrete workers and companies all over the world can literally be followed configuring and using non water based setups. Also, a vivid exchange about the systems used, diameters drilled, and materials processed takes place there, with many being astounded that this can work effectively.

Not using water in core drilling is proving to work especially in places where core drilling with water is impossible or extremely demanding, for example in sensitive areas such as already inhabited rooms, hygiene areas, offices or cellars. The dust free and clean work has advantages as it works as simply and effectively as dry drilling without a lot of tedious, necessary additional working steps, especially during the preparation and follow up of a project. In addition, the job is often done faster because the drilling is often finished in less time than with conventional wet drilling.

Aiding the process are developments such as the Kern-Deudiam Unix2 or Beto dry core drills, meaning even reinforced concrete can be drilled. They are said to maximise efficiency and flexibility in daily use on the construction site and lead to improved cleanliness.



Moreover, the core drilling motors are continuously optimised in a way that makes dry drilling in concrete even easier: in particular, the features and technology of the machines are being further improved. So called 'hybrid machines' are also in use which are able to perform either wet or dry. A switchable soft impact on many models combined with a powerful dust extraction system make working without water possible and more pleasant.



Richard von Harpe, Aquajet's area manager for Latin America and the Caribbean, believes that hydrodemolition solutions offers contractors a number of benefits. These range from productivity to peace of mind. However, he believes that not all hydrodemolition machines are the same, providing five key components to consider when selecting a hydrodemolition robot.

Equal distance control

Maintaining a close and constant working distance between the nozzle and concrete maximises efficiency. Imagine a swinging pendulum; the jet of most hydrodemolition robots works in a similar fashion. With a standard system, operators can experience as much as 254mm of variance as the water jet moves to the extreme left and right across the work surface. This variance leads to a loss of as much as 20% of the power before the water hits the concrete, greatly reducing productivity and increasing waste. Hydrodemolition robots from industry leading manufacturers with advanced systems, on the other hand, are able to maintain a preset distance from the nozzle to the concrete surface, regardless of the attack angle of the water jet, allowing for precise, controlled concrete removal over the entire work surface. This saves energy and removes concrete more efficiently both above and below the rebar. Overall, this advanced system allows operators to effectively remove 20% more concrete per pump hour compared to standard systems, adding up to significant energy and fuel savings and increased productivity.

Ceramic nozzles

Inefficient nozzles waste time and increase operating costs. Steel might be stronger than ceramic in some situations, but not when it comes to nozzles for hydrodemolition applications. Depending on water quality, ceramic nozzles from innovative manufacturers can last more than 350h

compared to less than 50h with standard steel nozzles. Using steel, a contractor would need to replace a single nozzle more than 10 times during the lifetime of one ceramic nozzle, incurring hours of unnecessary downtime. While steel nozzles are readily available at a lower cost than ceramic, more frequent change outs mean contractors end up spending more on steel nozzles before replacing one ceramic nozzle. This results in large expenditure over the course of the hydrodemolition robot's lifetime.

Computerised robotic management

Control is necessary to be efficient, and efficiency leads to profitability. Hydrodemolition robots with an advanced but intuitive robotic control system give operators 'futuristic' levels of precision. Using cutting edge technology, these systems allow operation at different depths in the same pass. A state of the art display panel uses clear and simple symbols combined with multi language text, making it very easy to programme the most advanced operations, including geometrical figures such as circles, triangles, squares and rhombuses.

Versatility

Accessories are vital to maximising a hydrodemolition robot's value. From road and bridge repair to industrial cleaning applications, accessories increase the robot's capabilities, helping contractors complete challenging projects in tough to reach areas or hazardous conditions. Hence users are advised to look for hydrodemolition robots with

a full suite of attachments for maximum versatility. This can include extension kits and spines to extend the robot's reach. Depending on an operation's service offerings, though, it might also include rotolances for surface preparation or circular attachments for concreate removal around pillars and columns. Some manufacturers also offer kits especially designed for applications in pipes and tunnels.

Hassle free transport

Trailers add additional purchase and maintenance costs. Some manufacturers offer a unique solution with a self-contained high pressure pump/engine system. Housed within a container, these compact units provide ample space for transporting the robot and accessories, eliminating the need for a transport trailer altogether. Once on the jobsite, these units can provide a secure work area, with amenities such as a built in workbench with a vice that provide contractors a space for jobsite maintenance and a place to store spare parts. Advanced silent running units are also available that further decrease overall costs. These units can reduce idle time by as much as 50%, while operating as high as 3,000bar and providing ample power for hydrodemolition applications such as concrete renovation and road and bridge repair.

Like any piece of equipment, the safety and productivity of hydrodemolition robots depends on available features. For maximum efficiency, Richard advises that users look to partner with innovative manufacturer for the most advanced solutions.









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PDi site report



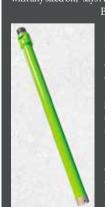
Hinkley Point power station wire sawing project

Drillcut began 2021 by embarking on a large wire sawing project at the renowned Hinkley Point nuclear power station. A staggering 234m of capping beam had to be taken off the sea defence wall in under four months. To add to the complexity of the job, all the work had to be carried out from mobile access platforms. With 310m² of wire sawing to be done, it was crucial Drillcut used the best performing wire for the project. After a few tests, the company wisely chose Dymatec's SDF W Diamond Wire. This is a 10.5mm sintered premium wire designed for heavily reinforced concrete. Consistently cutting over 2m²/h it kept the Drillcut team on track, with this type of cutting speed being normally compromised by short lifetime. However, with the SDF W Diamond wire, there was no need to worry as it returned cutting figures of over 1.55m² per linear metre of wire.

Drillcut's director, Harry Goodfield, said: "With so much at stake on this project we had to throw everything at it from the word go. We put our best teams on it; Dymatec came up with this outstanding wire and we managed to deliver the project ahead of schedule." An impressive number of 78 x 20t lumps were lifted onto trucks and taken off site successfully, with the only delays being caused by the occasional coastal storm which put the cranes out of action. 200m of SDF W Diamond Wire were used on the project to complete the 351 cuts with three wire saws.

New 'Highspeed Core Bit'

Adding to its core bit range, Syntec has recently introduced the new Highspeed Core Bit, featuring specially designed crowns for heavily reinforced / high MPa concrete. "Many customers had requested a tool that makes drilling small diameters by hand easier. When working without a drill rig it is super important that the core bit cuts smoothly, even when hitting steel reinforcing. In saying that, we always recommend using a drill rig with any sized bit," says Australian general manager, Phil



Badcock. "The crowns on these Highspeed Core Bits have been developed with a softer bond and higher diamond concentration, making faster cutting easier and reducing the likelihood of the core bit grabbing when encountering steel." Highspeed Core Bits are available in diameters of ing a shorter than usual drill depth, 350mm rather than the 430mm on regular Syntec core bits, they are ideally suited for hand drilling.



THE CUTTRONIX CM-10 DRILLING SYSTEM

Diamondtech construction successfully completes a challenging diamond drilling project with the Cuttronix CM-10 drilling system.

Diamondtech construction found that the two most time consuming tasks in a recent diamond core drilling project were the holes for the cast in situ piles at the Kurskaya Railway Station and drilling for the foundations in Moscow City. In either case, to fit the geology and strengthen the soil, angled holes of 200mm to 250mm diameter and 1m to 1.2 m depth were drilled. The work was performed in phases, but every stage had to be completed in a short time frame so as not to hold up the geology contractor, with the scope of the work and schedule not known beforehand, with the work being done when requested.

Such tasks are a good illustration of Diamondtech's working ways as it stresses the efficiency of the process it follows, not the quantity of equipment and personnel used. The 'round up enough people' approach, so to say, doesn't work on the recent project. It is simply not efficient economically because it creates many additional problems which would need to be solved due to the tight schedule for each added team of operators. Powerful high performance equipment was therefore required to deliver maximum productivity per shift, per machine. The other important factor was mobility of equipment due to large distances needing to be covered on site, with workers having to cover many kilometres moving equipment around each day.

Diamondtech operated on the principle of creating comfortable and safe working conditions as much as the nature of core drilling work allows. This is why, when looking for power, the company uses exclusively electric systems not burdened by heavy hydraulic pumps and hoses. To this end, the solution adopted came from Estonian company Cuttronix, which supplied powerful 15kW brushless electric technology. The weight of the equipment is comparable to the widely used three phase systems combined with the power of hydraulic systems, a drill stand with the ability to adjust the angle in either direction from the perpendicular, and high RPM allowing work with a soft segment without the loss of segment lifetime. The drilling of holes of 225mm diameter in 1m thick concrete with heavy armature took between 10min and 20min, depending on the steel, and the average life resource of the segment from an Austrian supplier was 12m.

In Diamondtech Construction's opinion, these were very good results. During the entire job more than 500 such holes have been drilled. The company states that it was rare that there was any requirement for a second drill rig or a third employee on site. In effect the combination of equipment and company expertise ensured minimum personnel due to the powerful and high tech equipment.



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PDi news







Simex opens new facility in North America

Simex has opened a branch office in the US, based in Corpus Christi, Texas, with a new warehouse dedicated to Simex attachments and spare parts. This continues Simex's strategy of investing in new facilities and building stronger relationships with local distributors and national importers. Andrea Bonomi, chief operating officer, coordinates the commercial relationships between the Italian headquarters and the American branch run by vice president Ben Rapple. All the Simex attachments range is now available in different models and ready to be shipped throughout the US. Together with faster delivery times, Simex also aims to ensure rapid pre and after sale assistance, as well as providing consultancy and installations by trained staff. These and other activities, confirm Simex's global vision that although proudly rooted in Italy, it is now open to new worldwide challenges. The new branch sees Simex position itself as a reliable and well established manufacturer in the USA, and a member of trade associations including AEM (Association of Equipment Manufacturers), ARA (American Rental Association) and AED (Associated Equipment Distributors).



Dynaset launches vacuum product category

Dynaset has introduced a new vacuum product category with the arrival of its new 'Hydraulic Recycling Vacuum Bucket' and the 'Hydraulic Centrifugal Fan'. The plan is to expand the product ranges with additions in the future.

Dynaset vacuum products convert the hydraulic power of mobile machinery, vehicles and vessels into high volume airflow. The airflow can work as both a vacuum and air blower. The new Hydraulic Recycling Vacuum Bucket, HRVB, converts the hydraulic power of a mobile machine or vehicle into a vacuum for recycling applications and into air blowing for cleaning tasks. The HRVB offers an air blow/vacuum within one unit in order to provide fast and accurate demolition site cleaning and material sorting. In addition to the negative air



pressure of -8kPA, the HRVB also provides a max air flow of 3.4m³/sec, an auxiliary suction port and vacuum hose for foot work as well as an adjustable suction hatch. The user can adjust the hatch via hydraulics from the cabin. Applications include recycling and cleaning at construction and demolition sites, cleaning up after big events, vacuum cleaning of roadsides and vacuum cleaning of railways and tramways.

The Hydraulic Centrifugal Fan, HCF, converts the hydraulic power of a mobile machine, vehicle or vessel, into high volume air flow for air blow and vacuum applications. It converts the hydraulic oil flow and pressure into air flow via a fan blade, and produces air flow for all vacuum and blowing applications in mobile use. Similarly to the HRVB, it also provides air blow/vacuum within one single unit, and offers an air flow from 0.8m to 3.4m³/ sec. The HCF is CE-marked, and the unit cools itself without external cooling. Applications include air blowers and fans, industrial level vacuum cleaners, emergency ventilation, and vacuum cleaners. Both the HRVB and the HCF are used in industries such as construction and earthmoving, demolition and recycling, environment and infrastructure, and are ideal for the rental industry.

New brake assistant for Liebherr wheel loaders reduces stopping distance

'Active personnel detection' is an innovative assistance system for the Liebherr L 526 to L 586 XPower range of wheel loaders. Liebherr has now added two extra functions, 'brake assistant' and 'incident map', to active personnel detection. The brake assistant automatically slows the speed of the wheel loader to a standstill the moment the active personnel detection issues a warning signal. The incident map displays potential risk zones on the site using GPS data in 'LiDAT' - Liebherr's in house transfer and location system.

Active personnel detection visually alerts the machine operator via the display screen and sounds acoustic signals if there is danger in the wheel loader's rear area. The moment the active personnel detection system identifies a source of danger, the new brake assistant slows the wheel loader down to a standstill. Besides the brake assistant, a second new function for the active personnel detection at the rear is the incident map. Each time the assistance system detects a danger and a warning signal is issued, the system transmits a



GPS signal to LiDAT. On the basis of this signal, and for each operator of a wheel loader with active personnel detection, Liebherr provides a Google map in LiDAT showing these GPS points.

bauma Conexpo India 2021 put back to 2022

The decision to not hold North India's leading trade fair bauma Conexpo India comes after deliberations with stakeholders and a comprehensive study. It was ascertained that the organisers' goal to offer all participants optimal conditions for a successful trade fair would be difficult to implement under the current circumstances. Mr. Bhupinder Singh, the CEO of bC Expo India Pvt Ltd. said: "We have taken this decision after considering all the facts as we know them today and the responsibility we hold towards our stakeholders and the global business community. Both the uncertainty regarding the safety of our stakeholders and exhibitors and the return on investment pushed us to take this tough call."

Mr. Sandeep Singh, president of Indian Construction Equipment Manufacturers Association (iCEMA) and managing director, Tata Hitachi Construction Machinery Company Private Limited supported the decision: "While it is unfortunate that the show will not be held, we at iCEMA are still in complete support of this well thought decision. We will continue to lend our unreserved support to bauma Conexpo India 2022. These times demand our ultimate understanding, and we will assist the construction industry through thick and thin."

Brokk launches 'Brokk Connect'

Brokk has launched an online platform for connected Brokk demolition robots. Brokk Connect is a hardware and software solution uniquely designed for Brokk robots that connects the robots to an online portal where users can track and manage their machines. In addition to providing real time data, it analyses information to help Brokk owners optimise machine utilisation and machine uptime. Combined with a 'Brokk Uptime' service agreement, it enables Brokk customers to fully focus on maximising the value of their business.

Brokk Connect is an online platform developed especially for connected Brokk robots. The solution includes both hardware and software that are unique for the specific requirements of the operation and



management of a customer's robots. The Brokk Connect hardware installed on the machine is connected to both the control unit and all the sensors on the machine. The software is uniquely designed to process and analyse all the data from the robot to help Brokk owners and operators to be in full control, with the connection to the robot being over a mobile phone network.

Through the online platform, users can locate and manage the entire robot fleet, get precise information on every activity, and receive alerts regarding any service requirements. "Since Brokk Connect is a solution developed by Brokk, and not a standard system just added to the robot, it can be completely designed to create maximum value for Brokk owners. Whether the user's focus is to improve machine utilisation and business operation or to maintain and monitor the machine health, the system supports that," said Martin Krupicka, CEO of Brokk Group. "In fact, more and more of our customers are discovering the value of simply letting Brokk take care of their robots, while they focus on running their business."

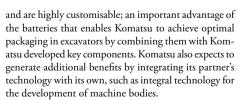
Brokk Connect will initially be launched in Sweden, Switzerland and Italy. Later in 2021, it will become available in the rest of Europe and North America, then followed by the rest of the world. Brokk Connect will be available for delivery on all new Brokk robots but can also be retrofitted on older models, meaning that Brokk customers can get their entire fleet connected.



Komatsu Ltd. has signed a collaboration agreement with Proterra Inc. of the United States for the supply of Proterra's industry leading battery systems, with the aim being to electrify Komatsu's small and medium sized hydraulic excavators. Komatsu plans to advance the PoC (Proof of Concept) tests starting in 2021 and enter commercial production of its electric excavators in 2023 to 2024.

Proterra is a leader in commercial vehicle electrification technology. Through its 'Proterra Powered' programme, the company delivers its battery systems and electrification solutions to help heavy duty and commercial vehicle manufacturers around the world electrify their vehicles. In April 2020, Komatsu launched the PC30E-5 electric mini excavator, whilst for its small and medium sized models, Komatsu is going to receive high performance batteries and peripherals which Proterra has developed with its state of the art technology. This know how has been acquired over the years with Proterra being said to be North America's leading manufacturer of electric transit vehicles. Hence, Komatsu is set to collaborate with Proterra as one of its strategic partners in the PoC tests.

In the course of PoC tests, Proterra and Komatsu will develop an optimal battery system for small and medium sized hydraulic excavators which require a large amount of output. Proterra's flexible battery platform leverages what is said to be industry leading energy density



Komatsu has been at the forefront of the industry by developing products designed to contribute to mitigating environmental impact, as represented by its hybrid hydraulic excavators launched in 2008. These are said to be the world's first hybrid construction equipment on the market, with its PC30E-5 electric mini excavator launched for the domestic rental equipment market.

Under its three year mid-term management plan (FY2019 – FY2021), Komatsu is working to achieve sustainable growth through a positive cycle of improving earnings and solving ESG issues. Komatsu also upholds

the targets of reducing CO2 emissions by 50% by 2030 (starting from 2010). To this end, Komatsu is working to supply high quality, high efficiency products, service and solutions designed to mitigate environmental impact in response to climate change and improve safety.

As the concerns over climate change accelerate around the world, Komatsu is making full use of its accumulated technologies for hybrid construction equipment and electric mini excavators. Komatsu will also advance collaboration with its various strategic partners. In this manner, Komatsu will develop electric construction equipment which features zero exhaust gas and major reduction of noise, while achieving excavation performance on par with engine powered models. While continuing its commitment to quality and reliability, and working to maximise its corporate value, Komatsu is working to achieve safe, highly productive, smart and clean work places of the future.





Caterpillar has released two new 'Ultra High Demolition' excavators, the 340 UHD and the 352 UHD, together with new 'Hydraulic Connecting S Type' couplers providing the ability to switch between hydromechanical attachments.

he 340 UHD features a more than 13% higher pin height than the 340F UHD to reach up to eight floor structures. More UHD and retrofit boom/ stick configurations, along with Cat's demolition attachment range, are available. Its coupling system can switch between two UHD fronts and retrofit booms/ sticks without special tools in 15min, according to Cat. The hydraulically actuated variable gauge undercarriage offers a 4,000mm extended width that retracts to 3,000mm with 600mm track shoes for transport. The design reduces UHD boom transportation height to less than 3,000mm, with the 340 UHD with fixed undercarriage having a reduced transportation height of 3,403mm. The sticks can be configured with a Cat 'CW', 'S-type' or 'Pin' grabber coupler. The 22m front offers a maximum 3.7t weight at stick pin and horizontal reach of 13.55m at stick nose over the front and side of the machine. With a 3.3t maximum weight at stick pin, the 25m front offers a 13.33m maximum reach at stick nose over the front and side.

The hydraulic boom lines on the 340 HD are connected/disconnected by hand and without special tools, and contractors can choose between one or two piece booms. Stick length options include 2.8m, 3.2m and 3.9m. 'Standard Cat Payload' provides payload weighing and estimates so that operators, in Cat's own words, 'can achieve precise load targets when working with the one piece retrofit boom'. Cat Payload monitoring will be activated in 2021. Rated at 232kW, the EU Stage \bar{V} emissions standard compliant Cat C9.3B engine runs on diesel or biodiesel fuel up to B20. Three engine power modes - 'Power', 'Smart' and 'Eco' - match the machine to job needs to lower fuel consumption over the 340F UHD. Smart mode matches engine and hydraulic power requirements.

Viewed through the new 254mm high-resolution touchscreen monitor, the 'Cat Active Stability Monitoring System' informs and provides warnings to operators. Ranging from 1.5% to 100%, the side bar changes length and colour (green/yellow/red), depending on ratio. The width of the premium seat has been increased by 5% over previous designs. Its left hand tilt up console helps to improve ingress/egress up to 45%, according to Cat. Operators can programme machine operating settings, and the system stores them based on operator ID.

The 340 UHD features a 30° tilt up cab design, and the UHD front is work tool camera ready. The demolition cab is equipped with 'Falling Object Guard Structure' and front and roof P5A, 10mm laminated glass. The windshield and roof glass feature parallel wipers with three intermittent settings with washer spray, and a standard rear view and side view camera provide enhanced visibility. A 360° bird's eye view camera system is optional. The model also features a hydraulic filter with a 3,000h change interval and anti-drain valves. All fuel filters change at a synchronised 1,000h interval. Operators track filter life and maintenance intervals on the monitor. The model includes a ground level shut off switch. The machine's flat engine hood has a wide opening design for servicing and oil level checking. Other maintenance routine checkpoints are accessible from ground level as is the location for draining fuel system water and fuel tank water.

All 'Cat S·O·S SM' ports are accessed from ground level. Beyond Cat Payload, the new 340 UHD with the single retrofit boom is equipped with a host of Cat technologies. 'Cat E-fence' and 'Cat Grade' with 2D guide depth, slope and horizontal distance to grade. The machine compensates for excavator pitch/roll through the use of GPS and 'GLONASS'. Standard 'Cat Product Link' captures machine operating data and condition, and reports to field managers and the office via 'VisionLink'. 'Remote Troubleshoot' analyses machine data for diagnostics. 'Remote Flash' assures the 340 UHD is working with the



current version of on board software. The 'Cat App' allows workers to manage fleet location, hours, and maintenance schedules and delivers alerts to mobile devices.

The 352 UHD Ultra High Demolition excavator

The 352 UHD is designed to handle the difficult demolition of tall structures with Cat demolition attachments. The UHD front can be switched for a straight or bent (retrofit) boom position for lower level demolition and earthmoving applications. This switch is said by Cat to typically take about 15min with two people without special tools. The 352 UHD features a variable gauge undercarriage (hydraulically activated), as well as the 'Cat Active Stability Monitoring system', which informs the operator of work tool position within a safe working range and warns when approaching stability limits.

The 352 UHD provides 28m of vertical height to the work tool attachment pin, and 15.8m of horizontal reach when working with a 3.7t tool. These specifications allow the 352 UHD to demolish structures eight or nine stories high fast, with precision and control thanks to the electro hydraulic control system. The undercarriage gauge is 4,000mm when working, and 3,000mm for transport with 600mm track shoes. In retrofit straight boom configuration, the 352 UHD uses a 9.1m retrofit boom with a choice of 2.9m or 3.35m retrofit stick. Equipped with the longer stick and a 3.08m3 bucket, the 352 UHD has a digging depth of 6,670mm and a maximum reach at ground level of 11,880mm. The 352 models use the Cat C13 engine, rated at 304kW and meeting EU Stage V/U.S. EPA Tier 4 Final emissions standards. The C13 can operate on biodiesel up to B20, and there are three power modes available. With the retrofit boom, the machine can use Cat Grade with 2D, swing 'e-fencing' and Cat Payload. Cat Payload can be used with VisionLink to remotely manage production targets via Product Link.

The Cat demolition cab features a Falling Objects Guard Structure and includes front and roof laminated glass with a P5A impact rating. The cabs tilt up 30° and the windshield and roof glass feature parallel wipers with three intermittent settings with washer spray. Premium seat is standard. Rear view and right hand side view standard cameras are included. The left console tilts up for cab entry and exit, and viscous mounts reduce cab vibration. UHD models accept a work tool camera, which can be installed by the Cat dealer. Each joystick button can be programmed and these settings can be recalled using operator ID. The machine features an automatic hydraulic oil warmup feature and a high resolution 254mm touchscreen monitor. The model features ground level hydraulic oil checks and fuel system water drains. Filter life and maintenance intervals can be tracked via the monitor. All fuel filters can be changed at a synchronised 1,000h, and oil and fuel filters are grouped on the right hand side. Oil sampling ports allow for extraction of fluid samples for analysis.

New HCS Hydraulic Connecting S Type couplers

The new HCS Hydraulic Connecting S Type couplers can, according to Cat, switch between hydromechanical attachments and be operational in seconds. Excavators of similar sizes can share attachments, with HCS couplers covering a range of machines from 311-340 tracked and M314-M322 wheeled excavators. They are designed for performance suited to hydromechanical tools in demolition and in city earthmoving applications. The quick disconnect design prevents contamination of the hydraulic system, while the coupler design protects hoses and components. HCS couplers feature sensor technology and measures to keep attachments connected in case of hydraulic pressure loss. The coupler gives visual and audible cues, as well as confirmation on the machine's screen of connection to the attachment.



Hydrodemolition machine manufacturer Aquajet has introduced 'Aquajet Online', a cloud based system for equipment tracking, real time diagnostics, data collection and analytics.

Aquajet Online is accessible via a computer or smartphone and provides owners, operators and project stakeholders with a digital toolkit developed with the aim of maximising safety, security, productivity and machine utilisation. Robust data collection and analysis tools allow customers to track the long term value of equipment and its impact on their overall operation. "Aquajet Online is our answer to Industry 4.0," says Roger Simonsson, Aquajet managing director. "Location, efficiency and automatic features for your entire fleet are available at the touch of a button. The system controls and monitors key functions through a user friendly digital platform and provides actionable data, not just raw numbers, to help customers make positive changes for their business."

Aquajet Online tracks all registered machines in a list or on a map with GPS position for planning and deployment. The interface also reports serial number, active alarms, auto status, run time/auto time, and fuel levels/temperatures in real time for each machine. This allows insight into machine status as well as remote diagnostics, when necessary, to help avoid downtime. Additionally, the system allows for remote asset management, from SW/FW updates and parameterisation to control of specific machine functions.

In addition to real time information, Aquajet Online collects and stores data on each enrolled machine to help owners and project stakeholders track equipment effectiveness and key performance indicators to evaluate success. Data is stored, according to numerous ISO standards, for at least five years and can be retrieved after the machine has been decommissioned. Historic data can also be used to gain financial insights on the machine's overall value to the company as well as help identify the cause of maintenance issues. Data analytics is available through the system, making retrieval and evaluation of important information quicker and easier.

"As the industry continues to change, contractors and equipment operators need to be able to look beyond today's jobsite," says Roger Simonsson. "Aquajet Online allows them to not only keep track of what is happening right now, on the jobsite, but also evaluate the overall impact each piece of hydrodemolition equipment has on their process. With that information, they can optimise their operation for long term success."



New electric scarifier from Blastrac

The Blastrac BMP-335Elite is a new heavy duty electric scarifier. It is a fully electrical machine equipped with a brand new handle which enables the operator to control all the functions of the machine, including the independent driving wheels, the working speed, the tracking and the drum. The machine is available in two versions: a manual version and a remote controlled version.

The new Blastrac scarifier is ergonomically designed so that it is easy to adjust the speed and tracking to enable it to turn 360°. The digital ammeter on the handle turns red when the maximum Amp is reached, which means that the working depth or speed have to

be adjusted. The drum housing, which is surrounded by dust seals, is mounted in the frame by torque bushes that lower the vibration level. Thanks to this system, the BMP-335Elite is said to have a very low vibration level compared to other scarifying machines on the market.

Blastrac has also designed a full range of drums and cutters, which provide the opportunity to process any floor and specific application. Due to the specially designed dust extraction system inside the drum housing, the BMP-335Elite scarifier is dust free when connected to the Blastrac BDC-44 or EBE-200DC dust collector.



NEW PRODUCTS FROM JANSER

The BSM 400 is a new renovation grinder from Janser for grinding concrete, screed and asphalt, as well as removing adhesives, coatings, fillers, regulation of uneven floors and for the renovation of concrete floors. It is versatile for use in floor renovation, being suitable for optimal substrate preparation and removal of coatings. It is equipped with innovative technology in terms of ergonomics, low vibration and easy loading. Versions in 2.2kW or 4.0kW are available.

Janser is also launching the 'Strato Mobil' floor stripping machine IV, and according to Janser, it is in the upper class of self-propelled strippers. It weighs 190kg with its weight being evenly distributed. Thanks to a stronger hydraulic pump, its maximum speed has been said to have increased by 35% to 23m/min, thereby increasing the area performance for light to medium and heavy removal work. Its powerful engine, combined with the new hydraulic direct drive, provide the power for the high removal rate.

The Strato-Mobil IV is self-propelled with forward and reverse adjustable speeds. The adjustable guide handle operates in six positions enabling ergonomically beneficial work and simplified handling. Light, removable weights reduce the overall weight for easier transport. Janser has also recently launched the new stirring station 'Clever' which was announced in PDi 6-2020.



In the years ahead, thousands of German wind turbines will need to be dismantled and many will be replaced with newer, better wind turbines. Recycling specialists Eurecum has developed a well proven process for pre and post shredding of rotor blades.

housands of wind turbines across Germany are close to reaching the end of their contractually stipulated service life. Turbines that cannot operate economically must be dismantled, with obsolete turbines being disposed of. Many parts of a dismantled turbine are easy to recycle in a simple and very efficient manner, producing valuable recycled products. Concrete foundations and gravel from the substructure can be used in road construction; steel and other nonferrous metals and electronic components are sorted according to type and recycled. To date, one of the biggest problems has been shredding and processing the huge rotor blades which are made from glass fibre reinforced plastic (GRP). Recycling specialists, Eurecum based in Lutherstadt Eisleben (Saxony-Anhalt), has recently developed a process for recycling them. The rotor blades are efficiently cut up on site, transported to a recycling centre and shredded into industrially valuable GRP granulate.

Fast, efficient cutting

The disposal procedure begins at the location of the disused wind turbine. A powerful material handler, like those used by recycling and demolition companies to handle material at their depots, is used to crush the dismantled rotor blades. In spring 2020, Eurecum took possession of a new Cat MH3024 (24t) material handler supplied by Zeppelin Baumaschinen GmbH through the company's Erfurt branch. The material handler was delivered with an appropriately sized cutter attachment - a hydraulically driven Kemroc KDS 50 diamond saw (rated output power 135kW) with a 1,200mm diameter diamond cutting wheel. This attachment can also be fitted with a 1,000mm diameter diamond cutting wheel.

In extensive preliminary tests, this combination of carrier and attachment provided optimal performance. The Zeppelin branch in Erfurt also determined the parameters such as rotation speed and cooling for the best results in terms of cutting speed, minimum noise and dust and wear of the diamond wheel for the customer. Eurecum also purchased a fully hydraulic quick coupler on the dipper stick to achieve rapid changes between the KDS diamond saw attachment and a grab as well as helping to keep process time to a minimum.

The KDS range of diamond saws from Kemroc were designed to cut concrete, steel, reinforced concrete, natural stone and aluminium, being particularly good at cutting glass fibre reinforced plastics as used for wind turbine rotor blades. High rotation speeds and a large selection of cutting wheels open a wide range of applications where these attachments can be extremely effective. In practice, in one day an operator with this combination of material handler and diamond saw can cut three 40m long rotor blades of a typical 20MW turbine, each weighing around 8t, in lengths suitable for transportation. Actual cutting time is around 5h. Jets spray water onto the diamond wheel trapping the dust which is collected in fleece mats placed under the rotor blade. The fleece mats are collected and disposed of in the correct manner. "Composite material GRP is not inherently hazardous to the environment; it is also used in boat building for example," explained Eurecum managing director Alexander von Neuhoff. "But nevertheless, our method effectively prevents any dust from escaping into the environment."

Recycling at a high level

By cutting GRP rotor blades into three or four relatively

large sections on site, the environmental impact of recycling is kept to a minimum. Using a material handler with grapple, the sections are loaded onto trucks with so called 'walking floor' trailers and transported to the nearest Eurecum processing plant or to one of its partner recycling companies. At the Eurecum plant in Lutherstadt Eisleben, these sections are cut into sizes suitable for shredding in a twin shaft shredder down to the size of sheets of paper. This material is then passed through a single shaft knife rotor with secondary screening capability where it is reduced to a free flowing material with a grain size of 18mm. The next step is to separate out any iron and non-ferrous metals. The end product is a clean, fine grained mixture of glass fibres and plastic. There is an existing demand for this material as a substitute fuel in the cement industry, and also an increasing demand for this material at a higher level of recycling where it is used to produce recycled plastic parts.

Even before the Eurecum process was established, the recycling industry had ways to recycle rotor blades from wind turbines. However, according to the Alexander von Neuhoff, the volumes were not there to develop a process on an industrial scale. This is no longer the case and a solution had to be found that could handle the growing number of decommissioned rotor blades. "With our new recycling concept, which we offer throughout Germany, Eurecum can not only shred rotor blades in a highly efficient manner, but we can also produce material that can be reused which adds value to the recycled product. Our timing is perfect and with the planned shutdown or repowering of plants, we expect to be recycling between 2,000t to 3,000t per year," explained Eurecum managing director Alexander von Neuhoff.



DP700

- Single phase motor
- 10,000 PSI pressure
- Air cooled
- Transport wheels

These diagrams show the

DS400

- 3800KN splitting force
- Only 48mm hole required
- Splitting distance of up to 40mm
- Weighs only 23kg

DC300

- 110KN crunching force
- Crunching capacity 250mm concrete
- Weighs only 22kg











operational application of the DS400 and DC300.

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