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# IS CORING REINFORCED CONCRETE DRY A PROBLEM ?

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New Lavina Elite Dust
Extractors from Superabrasive
Atlas Copco Adds Four Models to Versatility Range
New FR200 Genus Scarifer from VonArx
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OilQuick Reacts to Open-S

A Response from Open S: Anders Jonsson (Rototilt) and Stefan Stockhaus (Steelwrist)

Concrete Cutting For Hilti, Drilling is a

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### Lessons From Vaccine Vigil -

#### Relief.

That's how I felt when that long-awaited email arrived informing me that a covid-19 vaccine appointment was available. Hopefully, you've received a similar notification, or will in the near future. The more than two months I spent

on my state's vaccine waiting list was an exercise in patience, and a lesson making assumptions based on incomplete information. I was content to wait my turn, of course, and understood the myriad administrative and supply challenges states had to tackle to get these shots into waiting arms. Some communicated those issues better than others but they weren't the only things that made my 10plus weeks of watching for the proverbial pot to start boiling a sometimes frustrating experience.

"Thanks" (I say facetiously) to hypertension inherited from both parents, I was eligible for a vaccine after the highest risk groups (the elderly, etc.). And with a friend who'd signed up shortly before me receiving his shot within a few weeks, it made sense that my own jab would arrive on a similar schedule. It didn't, and with friends and colleagues gleefully announcing their shots on social media, the sense of "jab envy" grew.

Had I taken the time to fully research how the vaccines were being distributed, I'd have learned sooner there were other many underlying conditions that made people far more vulnerable to the coronavirus's insidious effects. And, of course, certain jobs and responsibilities take priority over construction journalists, just as "normal" workplaces present far more risks of transmitting the virus than my home office.

The more I learned about the process, the more my protracted

wait made sense. Sure, I had gotten a place in a line, but it was a multi-dimensional queue, sort of like how ferry operators alternate boarding among vehicle types to balance the load. And thanks to a ramped-up communication effort by my state, uncertainty gave way to confidence that shot time was near.

What to take from this experience? Along with admiration and gratitude to the researchers, scientists, health care workers, and volunteers that have made both the vaccines and the ability to administer them on a mass scale possible, it's a reminder that things aren't always as they appear. Some things in life are immutable-death, taxes, and Murphy's Lawbut sometimes there are more reasons for why things do or don't happen than we realize. Everything and everyone has a story.

For the construction industry, from contractors to equipment manufacturers, the latest chapter in its pandemic saga appears ready to be written in a few months with the rescheduled World of Concrete show. Yes, it'll be different with a summertime setting, safety protocols even for the vaccinated, and perhaps a diminished turnout given continuing restrictions on overseas travel and an understandable wariness among some that maybe the time just isn't right for them to venture far afield.

But even then, World of Concrete will offer what most of us have missed for more than a year-a taste of "normal." And that, most certainly, will be a relief.

> Jim Parsons, Senior Editor jim.parsons@pdamericas.com





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### associations



PDa Magazine is pleased to present regular updates from the US National Demolition Association. This column comes from NDA Executive Director Jeff Lambert.

### NDA Welcomes New President and Board Members

The National Demolition Association extends a warm welcome and congratulations to Its new President Scott Homrich (HOMRICH), and new Board members Tony Frattalone (Frattalone Companies, Inc.), Tim Gunn (Adamo Demolition Company), John Satterwhite (Lloyd D. Nabors Demolition, Inc.), also Blake Svendsen (ERM Inc.). Also welcome to our new Treasurer Dennis McGarel (Brandenburg Industrial Service Co.).

This spring, NDA will host three virtual courses. They include the Foundations of Demolition - Project Management on April 28-29, and April 30 (course set-up sponsored by Volvo CE); Foundations of Demolition - Job Cost Tracking on May 7; and NDA Superintendent on June 16-17 (course set-up sponsored by CAT). To date we have 20 registration each for the Project Management and Job Cost Tracking Courses. Registration for the Superintendent Course will open in April. If you have not done so already, we hope you consider registering your staff/colleagues for these invaluable demolition specific courses. In addition, the Education Committee, in conjunction with World of Concrete will hold the Foundations of Demolition - Risk Management on June 10 in Las Vegas. Certification continues to move forward. The Certification Board held its kickoff meeting mid-March and plans to meet at the Summer Leadership Forum to begin job task analysis. As Congress continues to grapple with the pandemic, the Biden Administration released the American Jobs Plan, a comprehensive plan to overhaul the country's infrastructure. NDA is continuing to examine the effects of Biden's proposal and will be weighing in as needed with congressional committees as they work to craft legislation in response to the plan.

The next episode of the NDA podcast is available now available for download. Hosted by DEMOLITION Magazine Editor Alexa Schlosser, you'll hear Past-President Chris Godek discuss accomplishments from his term. President Scott Homrich talks about upcoming NDA initiatives for his term, and former Awards Committee Chair Rich Adamo reviews the NDA 2021 awards. All three offer their take on the on the 2021 NDA Virtual Industry Update and Awards Celebration. The podcast also includes an interview with Holly Price, president of the British National Federation of Demolition Contractors, who provides an industry update from across the pond. You'll also hear from NDA's Director of Government Affairs on recent activity. Stay tuned for more information on the NDA-OSHA Alliance. We will issue a press release once the Alliance has been formalized. NDA's Bill More and David Sinclair will be representing the organization on a European Demolition Association webinar on disaster relief, May 19. We hope you can join us and the members of the EDA.

The Convention Committee has begun planning for Demolition San Diego, having just met to discuss site selection for Live DEMO.! Save the date: February 26 - March 1, 2022. Demolition San Diego is sure to be one of the best—if not THE best—demolition conferences of the year, with plenty of opportunities to network, see the latest in equipment, test new products, and enjoy cutting-edge education and training. Registration will go live this fall.

Finally, the Industry Committee held its kick-off meeting last week, and will begin work on two important components of our strategic plan: guidance documents for power plant decommissioning and implosions.

Are you a member? Do you know a contractor who is not an NDA member? NDA offers many year-round benefits that help contractors stay relevant in industry and build relationships that advance business. Contact me directly to learn more about membership with NDA.

> Jeff Lambert www.demolition.org

### business

### AEM Elects Caterpillar's Otto Breitschwerdt to Construction Equipment Sector Board

The Association of Equipment Manufacturers (AEM) is pleased to announce the election of Caterpillar Vice President Otto Breitschwerdt to its construction equipment sector board.

"I am looking forward to working with Otto as a member of our CE Sector Board, and gaining his perspective on the construction equipment industry," says Megan Tanel, Senior Vice President of AEM's Construction Equipment and Utility Sector. "He brings both a deep and broad knowledge base to AEM, especially when it comes to the construction equipment world in Latin America."

Breitschwerdt joined Caterpillar in 1990 and has served in a variety of positions in sales, marketing, operations, engineering, and supply chain. As head of Caterpillar's Building Construction Products Division, he has global responsibility for the manufacturing, design, and marketing of the small wheel loader, compact wheel loader, compact track loader and skid steer loader product families.

He has also served in a variety of other Caterpillar assignments, including eastern U.S. region manager, engineering and supply chain director, Brazil district manager, and Brazil facility manager.

Breitschwerdt earned a degree in agricultural engineering from the University of São Paulo in Brazil. He is a also graduate of Caterpillar's Digging Deep program offered by Stanford University.



### Andersson Takes Helm of Atlas Copco Power and Flow Division

Atlas Copco has named Mikael Andersson as President of Power Technique's Power and Flow division. Andersson will lead the global business with the target to strengthen the market position of the division in its three core pillars of power, light, and flow. Andersson has held various roles within Atlas Copco since he started working with the company in 2002 as a controller for Rock Drills in Sweden. For the past three years, he has served as general manager for Power Technique North America.

"Mikael has gained good experience from his time in Power Technique," says Andrew Walker, Business Area President Power Technique. "With his proven track record in management, finance, as well as sales and service development; he will take the division to the next level."

Since 2018, Atlas Copco's Power and Flow division has accelerated innovation and product development of generators, light towers, and pumps, ensuring the products needed for Atlas Copco's customers.

A native of Sweden, Andersson holds a Bachelor of Science degree in Business and Economics from the University of Örebro, and a Bachelor of Science degree from the University of Gothenburg.



### Yanmar Establishes Canadian Energy Systems Unit

Yanmar has announced the establishment of YANMAR Energy Systems Canada Inc., an energy company that will provide advanced solutions in gas-powered generation, and heating, ventilation, and air conditioning (HVAC) systems. A subsidiary of Yanmar America Corporation, the new company is headed by Kazuko Newton, who has extensive experience in the HVAC market in Canada.

"The Canadian market has unique energy requirements," Newton says. "We look forward to delivering Yanmar's solutions to Canadian customers across a wide range of gas- powered generation and HVAC applications. We will work closely with our dealer partners to provide exceptional customer experience and customer service."

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### **Event Calendar**

### **Bebosa Show Postponed**

April, 15-17, 2021 Willingen, Germany www.bebosa.com

### Intermat 2024

April, 2024 Villepinte, Paris Nord, France

www.intermat.fr

### ISRI 2021 - Virtual April 20-22 and 27-29, 2021 Mandalay Bay, Las Vegas, USA www.isri2021.com

World of Concrete 2021 June 8-10, 2021 Las Vegas Convention Center, Las Vegas, Nevada www.worldofconcrete.com

### Hillhead 2021 June 21-23, 2021

Hillhead Quarry United Kingdom www.hillhead.com

### **DEMCON 2021** September 9-10, 2021

InfraCity, Bredden, Stockholm, Sweden www.demcon.se

### **Concrete Show Brazil 21** September, 2021

São Paulo Expo, São Paul, Brazil www.concreteshow.com.br

### The Ara Show 2021 Oct 18-20, 2021 Las Vegas Convention Center, Las vegas, Nevada www.arashow.org

**ISRI 2022** March 21-24, 2022 Mandalay Bay, Las Vegas, USA www.isri2022.com

### **BAUMA 2022** April 4-10, 2022 Munich Exhibition Center, Munich, Germany

www.bauma.de

### NDA Elects New President

The National Demolition Association is pleased to announce Scott Homrich of Homrich, located in Carleton, Mich., is the newly elected President of NDA for the 2021-2023 term. Homrich previously served as Vice President and was elected to serve as NDA's president during the Annual Meeting of the Members, held virtually on March 3, 2021.

"I am truly grateful to be able to serve the organization in my new role as President of the National Demolition Association," says Homrich. "2020 has been a challenging year for our industry and community to overcome, but I see a bright future ahead of us. Under the leadership of Chris Godek and my fellow Board of Directors, we have persevered and emerged a stronger organization. I look forward to continuing our work to advance the mission of NDA and inspire the next generation of great leaders in demolition."

#### Others elected to the Executive Committee include:

Vice President: James Milburn, Milburn LLC, Bellwood, III. Secretary: Ben Hayden, Hayden Wrecking Corporation, Washington Park, Ill. Treasurer: Dennis McGarel, Brandenburg

Industrial Service Company, Chicago, Ill. Past-President: Chris Godek, New England Yankee Construction, LLC, Milford, Conn.

### The following members were elected to the Board of Directors:

Tony Frattalone, Frattalone Companies Inc., Saint Paul, Minn. Jim Graham, Winter Environmental, Peachtree Corners, Ga. Tim Gunn, Adamo Group, Detroit, Mich. John Satterwhite, Lloyd D. Nabors Demolition, LLC, Hutchins, Texas David Sinclair, Safedem Limited, Milledgeville, Ga. Blake Svendsen, Environmental Resources Management, Malvern, Pa.

www.demolitionassociation.com



Scott Homrich, new NDA President.



### Genesis Attachments Announces New Canada **Dealership Agreement**

Genesis Attachments has partnered with SMS Equipment. Inc., to sell and support Genesis products throughout Canada.SMS Equipment Inc., a leading industry provider of construction, forestry and mining equipment, will provide access to Genesis mobile shears, concrete crushers, and grapples, as well as parts, across its 38 coast-to-coast locations. The dealership agreement also expands SMS Equipment's construction product offerings to the Canadian demolition, scrap recycling and handling, and aggregate industries.

"SMS Equipment focuses on providing solutions and ensuring our customers have access to the best products," says President and COO Robin Heard. "Genesis is a worldclass leader in attachments and shares our commitment to deliver customer value and product innovation. This is a great addition to SMS Equipment's portfolio of world-class products and further solidifies our position as the number-one Equipment Solution Provider across Canada."

Genesis North American Sales Director Justin Palvere echoes that sentiment, "Partnering with SMS Equipment brings industry-leading product experience, expertise, availability and support to our customers across Canada," he says. "Their market knowledge and cross-country locations will greatly expand our ability to serve the demolition and scrap industries."

#### www.genesisattachments.com

### **Demolition New Orleans Canceled Due to COVID-19** Concerns

Earlier this year, the National Demolition Association's Board of Directors made the difficult decision to cancel Demolition New Orleans. At the time, promising news from Centers for Disease Control and Prevention (CDC), and World Health Organization (WHO) regarding the future of the coronavirus pandemic nevertheless left prospects for in-person events for 2021 remain shrouded in uncertainty. Louisiana governor John Bel Edwards also extended his modified Phase 2 order, keeping COVID-19 mitigation measures in place throughout February, and strongly recommending against large gatherings.

As such, NDA's board felt the decision to cancel Demolition New Orleans was in the best interests of all attendees, exhibitors, and volunteers.

The vaccine roll-out and improvements

in rapid testing programs gives NDA great confidence for the prospects of the industry, including the delivery of a successful Demolition Convention and Expo in San Diego, Calif., February 26 - March 1, 2022.

And while NDA members will not be gathering in-person this year, the association is exploring opportunities to celebrate those who have reached great milestones in their careers and innovative project work within the last year. NDA will share details about upcoming education and the presentation of the 2021 awards as they become available.

NDA would like to thank the Convention Committee, and in particular, Scott Laird and Scott Stein for their amazing work in planning this year's event. Their leadership during this trying time has been appreciated by the NDA staff and fellow volunteers.

NDA apologizes for any inconvenience this cancelation may have caused, and greatly appreciates its members' understanding. www.demolitionassociation.com

### Talbert Announces 2020 **Dealer Award Winners**

Talbert Manufacturing has named Hale Trailer Brake & Wheel of Voorhees, NJ, as its top dealer for 2020. This award recognizes performance in trailer sales, service and parts on behalf of Talbert Manufacturing. This is Hale's 13th consecutive time in the top spot. The dealership was also recognized as the top parts seller for the year. A full-service dealership with 12 locations from Maine to Florida, Hale sells new and used trailers and related equipment. Hale also rents trailers, sells commercial trailer parts and accessories and provides general trailer service and repairs.

Talbert also named Leslie Equipment Company as the Most Improved Dealer of 2020 and one of the top 10 dealers overall. Leslie Equipment is a consistent top Talbert dealer, providing quality construction, forestry, mining and oil and gas pipeline equipment for more than 45 years. The company is recognized within the industry as an innovative leader in sale and product support. Eight locations serve customers in Kentucky, Ohio, and West Virginia.

The remaining top Talbert dealers, based on 2020 sales, are in alphabetical order: Columbus Equipment Company, Columbus, Ohio, Coogle Truck & Trailer Sales, Otterbein, Ind., Freightliner of Grand Rapids, Mich., Lucky's Trailer Sales of South Royalton, Vt., Lynch Chicago of Alsip, Ill., and Waterford, Wisc., Remorgues Lewis, La Présentation, Saint-Hyacinthe, Québec, Reno's Trailer Sales & Rental, Belle Vernon, Pa. and Royal Truck & Trailer Sales & Service Inc. Dearborn, Mich.

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- Safety Training
- Best Practices and Standards



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### OilQuick Gets New Logo and Graphic Profile

OilQuick is continuing its year-long program to update its logo and other imagery to reflect the company's commitment to quality. According to marketing manager Johan Lindqvist, "The old logo has been around for a long time and we thought that it was time to have a refresh and get a common design

### Simex Opens U.S. Branch

Simex wasn't immune from 2020's many challenges, but the company persevered by making new investments in facilities and stronger relationships with local distributors and national importers. To start 2021 on the right track, the company opened a new branch office and warehouse in Corpus Christi, Texas.



Andrea Bonomi, Chief Operating Officer, coordinates commercial relationships between the new office and Simex's Italian headquarter, while Ben Rapple, as Vice President, oversees US operations. The new office means the full range of Simex attachments can be expedited to any location in the country. What's more, experts and assistance with on-the-spot installations

### It's On! WOC Approved to Move Forward in June

Informa Markets, organizers of World of Concrete, has received approval from the Nevada Department of Business and Industry to move forward with its 2021 in-person edition. The event is scheduled for June 8-10 at the Las Vegas Convention Center.

Informa Markets has worked with the Convention Center to submit a thorough health

language for all our markets."

Lindqvist says the new profile is contemporary, while the logo's minimalistic geometric shapes represent OilQuick's modern, innovative attitude.

"It also conveys our product's stable and high-quality position, without being too frilly," he adds.

### www.oilquick.com





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#### www.simex.com

and safety plan to the Nevada Department of Business and Industry. The proposal outlined specific operational protocols and communication strategies surrounding the event. The plan was largely based on the framework of Informa AllSecure, a set of rigorous health and safety measures to prioritize guest safety at trade events, including mandatory face masks and temperature checks for all participants.

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### reports.

Tractive has released its a generation of Pentruder products that the company believes the industry has been waiting for. In this article you can read about all the benefits and the organization behind the new Pentruder RS2 wall saw and the Pentpak 3 power pack.

Those 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 stick out our chin and pull it in again, a little back and forth. But for us, product development is not a self-fulfilling prophecy," says Marie Peil, Tractive's marketing manager, and the daughter of founder Anders Johnsen. "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 longer time than the competition. If we are not completely satisfied, we have no problem going back to the drawing table. Our customers are worth the very best."

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 in 1977. Johnsen, already well-known for developing gearboxes for rally cars, was asked by a Swedish concrete cutter if he could design a gearbox for a drilling system. Developing a gearbox for a concrete drilling system worked out perfectly, which led to a new venture for Johnsen and his wife, Ingrid. Over the next decade, they began to develop and manufacture a range of machinery and equipment for concrete drilling. Their business was subsequently acquired by a multinational manufacturer at the beginning of the 1990s.

Johnsen returned to his rally car roots with the subsequent formation of Tractive AB, but he retained an interest in the concrete cutting sector. In order to meet market demand and manufacture new products, he created Pentruder and launched the company's first wall saw in 1997. Since then, rally cars gearboxes have taken a back seat to the development and manufacture of concrete cutting equipment.

#### **High-frequency focus**

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. That

# New HFi wit RS2 and Pe



From left: Marie Peil, marketing manager; Kristoffer Johnsen, production manager; Jenny Muda, CFO; and Elin Skantz, PR and communications manager.

changed in the early 2000s, when high-frequency (HF) technology was introduced concrete drilling machines. The development of electronics made it 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 hydraulic-driven machinery for a number of years. Johnsen initial concerns that various technical features on Pentruder HF wall saws would be

too sensitive for tough tasks proved unfounded, and users in Europe immediately showed great interest in the new machinery. Demand increased sharply, followed by interest among contractors in the US, Japan, and Australia.

In 2005, sales of the second-generation of the new technology platform for HF 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.



# h Pentruder htpak 3 Are Here

Tractive built the 21,500 ft2 (2,000m2) facility to its specifications and expanded its workforce to 16 employees. That was the start of many other company changes, including a major investment in CNC-controlled multi-operation machines, and multiple facility expansions. The need for additional storage and production space has Tractive planning another 26,900 ft2 (2,500m2) expansion within two years. A backlog of orders has increased extensively as more and more resellers have been linked to the company's operations. The export share of company activities has increased, as have the number of employees, now numbering around 50.

Since 2014, when an agreement was reached with U.S. manufacturer ICS Blount, sales in North America have increased significantly. The prevailing rumor in Europe and Japan, that the real concrete cutting connoisseurs (or nerds) choose Pentruder, is increasing also in North America as well, resulting in more American contractors choosing the brand.

ICS now sells Pentruder in the US and South America, with 36 dealers worldwide, including a Swedish and Japanese subsidiary. In the US, Pentruder's main hub is still located in Chandler, Ariz., with Terry Martin, who worked with Pentruder long before ICS took over sales and service in the country, still being a key figure.



Pentruder

HFi with new Pentruder RS2 and Pentpak 3.



It is starting to get quite crowded in Tractive's machining hall with advanced CNC-controlled multi-operation machines standing side by side. Recently, investments were made in a new fully automatic milling machine.



reports

### New HFi with the RS2 wall saw and Pentpak 3

On March 1, 2021, 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. In addition to Peil, twin sister Jenny Muda is Tractive's CFO, while brother Kristoffer Johnsen serves as production manager

"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," says Peil, "but they are not involved in the daily operations in the same way as before."

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. 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 as a separate unit, fitted with a new type of communication with the saw to increase performance and power, and achieve 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," says Elin Skantz, Tractive's marketing communications manager. The saw can handle blade diameters of up to 63 in (1,600mm). A single cable links the Pentpack with 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 became even better than we could imagine," Skantz adds. "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 and greatly increased electronics. RS2, for example, has much fewer gears,"

There are sound arguments for the new Pentruder RS2 having integrated motors with slip clutches. The 24hp (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 55 lbs (25kg), and is equipped with smart



100 100

Here the "heart" of the wallsaws is mounted.

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 maximized 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 can be performed with standard tools. Also, worth mentioning is the new light and stable blade guard that is easy to loosen and put in place and provides very good protection against splashes from the blade. The new Pentpak 3 is sturdy and has a built-in Type B earth fault circuit breaker.

#### Developed and manufactured completely within our own walls

"The entire new third technology platform has been developed by us, even the control box itself for the saw," says Kristoffer Johnsen. "I would like to say that it is 'stateof-the-art Pentruder'. In general, the saw contains far





fewer components that can break than in previous saws." Johnsen adds that all components have been refined and improved upon from the second-generation machines, which 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 percent," he adds. "The saw also has high torque and a large speed range, while the Pentpak 3 can withstand high heat."

Tractive is also unique in that the company performance its own metal processing. The company buys the best possible aluminum and mills out each component. This is one of the reasons why 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 Skantz.

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. Peil says the company is actively working to expand the facility within two years.

"We already have the land," she says. "What we need most is more storage space and production areas."

### Strong, loyal, and flexible organization that moves forward

Because Tractive reflects the values of a large family, the organization is extremely flat, and decision-making paths are very short. Everyone in the company is fully involved in what happens in the company and can exert influence. This approach proved beneficial during the pandemic, given the need to quickly adapt processes and routines to new reugirements.

"We really want to pay tribute to our staff, who have always been extremely committed to the company," says Peil.

Adds Kristoffer Johnsen, "We have no ambitions to work 'lean,' we run our own race without 'toolboxes' and platitudes."



Unlike other manufacturers that cast their wall saw chassis, Pentruder machine mills its chassis from solid high-quality aluminum. This is to achieve the highest possible quality and durability and provides optimal weight distribution.



A flexible trolley that holds everything for the new RS2 wall saw. The blade guard is hung on the right side.

The siblings also emphasize that the company's resellers as an extremely important link in the sales and service network. The company has a very flexible, reliable, and strong sales organization 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," Skantz says. "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 word-of-mouth recommendations."

www.pentruder.com



A single cable with this unique connector is all that's





All components have been developed within the walls of Tractive in Borlänge, even the new remote control.



The lightweight protective blade guards for the new RS2 wall saw are also easy to put on and remove.



# Servisa and Indeco Pa Deutsche Post Headqu

In December 2020, Servisa completed demolition of the Deutsche Post headquarters in Berlin. The technical and logistical aspects of this project made it a tough challenge, given the site's location in the city centre.

The timeframe for the demolition also put the organisational capacities of the contractor to a hard test. Servisa's task, in fact, was to demolish the three-storey building while operating in a confined space where impact to the surrounding area had to be kept to a minimum. The structure had been built with high-resistance concrete (with an unconfined compressive strength over 45 MPa), and 2- and 3-inch (50- and 80mm) diameter rebar in the foundation and plinths.

The project was concluded successfully with the help of Indeco attachments, which made the difference in terms of productivity and scheduling. Added to an HP 5000 hydraulic hammer, a pair of multifunctional IMP 25 Combi Cutter jaws proved effective and adaptable to the different operating situations. Thanks to the interchangeability of the tools, the attachment could be transformed into a breaker, crusher or shears, according to need.

The IRP 18 X pulverizer was used to carry out the primary crushing of more than 106,000 ft3 (3,000 m3) of demolition waste. This attachment performed very efficiently also thanks to its geometric design. This feature increases constancy and efficacy in the crushing action and thereby reduces working times and stresses transmitted to the excavator. The IRP 18 X also delivered great productivity due to its hydraulic system with a "regeneration valve," which enables the movable jaw to be closed more quickly under no-load conditions, allowing all available force to be applied only when the material is being crushed.

A valuable asset to the project was the IMG 2800 D multigrab jaws, whose manoeuvrability and mounting bracket compatible with other Indeco products guaranteed the highest precision when handling the different materials. Servisa CEO Sascha Hellwig sees a trend of demolition contractors becoming subcontractors of recycling companies.

"This is because the problem of transporting waste to disposal sites has more and more strategic importance, and it's the reason why we've decided to consolidate in both directions," he explains. "Here in Berlin, for example, one thing is to send a truckload of waste material to the disposal site, and quite another to haul away 800,000 tons, as we did last year."

Hellwig adds that evolving regulations may also require contractors to move debris via modes other than trucks, such as trains, barges and ships.

"In this business you have to be very creative, also when it comes to interpreting laws and regulations regarding waste and its handling," he says. "Often, we're dealing with structures from the 1970s or 80s that contain special waste, such as asbestos. For all these reasons, just having an excavator with a big hammer is no longer enough to call yourself a demolition contractor; the concept is much broader now." www.indeco.it







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## UK Nuclear Power Station Undergoes Major Wire Sawing Project

Drillcut began 2021 by embarking on a large wire sawing project at the renowned Hinkley Point nuclear power station in England. A staggering 768 ft (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 3,337 ft2 (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, a .41-in (10.5mm) sintered premium wire designed for heavily reinforced concrete. Consistently cutting over 21.5 ft2/hour (2m2/hour), the kept the Drillcut team on track, enduring long than conventional wire that wears out quickly with this type of cutting speed.

"With so much at stake on this project we had to throw everything at it from the word go," says Drillcut's director, Harry Goodfield. "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 large concrete 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. More than 650 ft (200m) of SDF W Diamond Wire was used on the project to complete the 351 cuts with three wire saws.

www.drillcut.co.uk





### Military Demolition Project Complies With Strict Dust Emission Rules



Military contracts can be difficult to secure, and general contractors need to display an ability to complete the job in a timely manner, maintain a safe workplace and comply with the environmental standards required for each phase. Knowledge, reputation and reliability made DMS Contracting of Mascoutah, III., the right choice for a demolition project at an Illinois military base.

Six buildings once used as barracks housing hundreds of soldiers were transformed and expanded into a hotel for visiting family, dignitaries, and soldiers on temporary assignment. Project leads chose a prime contractor for the construction phase, and DMS won the bid as a subcontractor for demolition on the 8-acre (3.2-hectare) site. Built in different eras, some buildings were constructed of hollow-core cinderblock with beams, while others were wood. With an eight-month schedule for demolition, DMS used four excavators with different attachments. One had a hydraulic multi-processor with a concrete cutter jaw that broke concrete and made easy work of metal support beams. Others had interchangeable buckets and accessories that helped take down, sort and load the debris into waste containers to be covered and transported to either the local recycling facility or landfill.

Although much of the dust is not considered harmful, many of these emissions can contain traces of HAPs, from asbestos to silica, which need to be mitigated at the point of emission and prevented from becoming airborne. Currently, the most common method to control airborne particles is by using water. In contrast, atomized mist droplets, ranging between 50 and 200 ?m in size, linger in the air and create virtually no slipstream, facilitating collisions with airborne particles and driving them to the ground. Atomized mist also settles lightly on material surfaces, offering ground-level suppression without soaking the substrates.

Illinois EPA regulations restrict particles of  $\leq 10$  ?m in size from leaving the site line of a demolition project. Moreover, OSHA regulates the exposure of workers operating around activities that produce harmful silica dust. The primary difference with military guidelines is establishing "case-by-case maximum achievable control technology (MACT) determinations required by Section 112(j) of the Clean Air Act," which stipulates that contractors should seek the best control method possible in order to suppress airborne particulates.

Atomized mist technology is considered MACT because of its superior ability to capture airborne particulates and pull them from the air using a fraction of the water. The specialized cannons with front-mounted nozzle manifolds fracture pressurized water into a mist that is propelled by the high-powered fan in the back. Mounted on a roadworthy mobile carriage, the DustBoss DB-60 has a powerful 25 HP industrial fan generating 30,000 ft3/min (849.50 m3/min). Water is pumped through 30 atomizing nozzles that fracture the droplets into an engineered mist that's distributed in a 200-ft (60 m) cone-shaped pattern. The mist can be directed at a specific activity or used to raise the humidity level over a large area using the 40° oscillator and 0-50° vertical height adjustment, which allows the machine to deliver approximately 21,000 ft2 (1,950 m2) of coverage. Capable of covering as much as 125,000 ft2 (11,613 m2) when equipped with optional 359° oscillation and consuming only 12-18 gallons/min (45-71 liters/min), the DB-60 limits runoff and pooling associated with other water-based suppression methods.

The unit can be controlled either by a digital touch screen display housed in a sturdy NEMA 3 cabinet on the machine or via a remote hand-held device, so the settings can be easily adjusted by workers on the ground or by nearby excavator operators. DMS powered the unit using a three-phase diesel generator mounted on a separate trailer and drew water from the local hydrant system. Using a pickup truck or side-by-side to move the DB-60 to various points on the site based on activity and winds, operators were able to properly position the unit and adjust the settings for maximum coverage. While the machine operated independently, workers were able to perform other duties until a change was needed.

Operators report that the powerful fan allows the mist to cover the entire operational area, offering both topical treatment and airborne dust suppression. Disruption of settled dust by loading and separating material was also well-mitigated by the unit, allowing all stages of the operation to be compliant with little worker exposure to machinery or debris. This improved safety on the site and reduced the cost of operation.

"As it turns out, the DustBoss was one of the most reliable, rugged and versatile pieces of equipment on the site," Mazander says. "It's a great tool that's maintenance-free and a pleasure to work with. We had no issues with dust and no emission-related violations."

www.bosstek.com

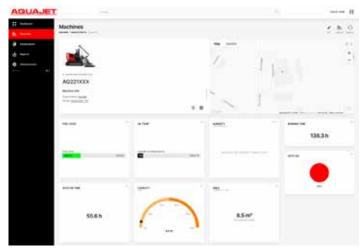


### Aquajet Online: New Tool Provides Real-Time Data for Long-Term Success

Aquajet introduces 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 to maximize safety, security, productivity and machine utilization. Robust data collection and analysis tools also allow customers to track the longterm value of equipment and its impact on their overall operation. Aquajet Online tracks all registered machines in a list or on a map with GPS position for easy 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 at-a-glance insight into machine status as well as remote diagnostics, when necessary, to help avoid costly downtime. Additionally, the system allows for remote asset management — from software/ firmware updates and parameterization 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 securely stored, according to numerous ISO standards, for at least five years and can even 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 for faster diagnosis and resolution. Data analytics is available through the system, making retrieval and evaluation of important information quicker and easier. All 2021 Aquajet equipment is eligible for a three-year subscription to Aquajet Online with purchase.

www.aquajet.se



Aquajet Online is a cloud-based system for equipment tracking, real-time diagnostics, data collection and analytics.

### Atlas Copco Air Compressors Optimize Fuel Efficiency and Increase Performance

In response to the upcoming regulation, Atlas Copco has upgraded its popular 8 Series of air compressors to meet the most stringent emission norms for construction and road equipment, making it the cleanest range on the market. In addition to greener operation, the compressors now feature innovative new technologies that help cut operating costs and improve productivity, with 25 percent less fuel consumption.

The updated 8 Series includes eleven



models, some with inbuilt generators. All feature a corrosion-free, durable, and strong HardHat® PE hood. Thanks to Atlas Copco's pioneering Air Element design, most compressors weigh under 1,653 (750kg) and occupy a footprint 10 percent smaller than comparable models. The 8 Series units may be towed behind a normal passenger car, simplifying operation, and reducing cost.



Some of the compressors are also now equipped with advanced control panels to simplify management and improve efficiency. The basic XC1004 controller introduces an electronic controller for models that otherwise only have gauges, and allows for an easy. smooth and safe operation while avoiding downtime. The XC2003 controller introduces applications as PACE (Pressure Adjusted Through Cognitive Electronics), which allows users to easily select the pressure from a wide range, while the flow adjusts automatically to your application's need. The XAS 68-12 PACE can handle a pressure range from 72.5 to 174 psi (5 to 12 bar) to cover a range of applications from paint spraying to drilling.

To help operators revolutionize fuel efficiency, the models that feature the XC2003 controller now offer a new feature called ECO-mode. The e innovative technology helps reduce the cost associated with running com-



pressors on idling mode during downtime, for example, when changing parts in machinery or moving equipment to new locations on the site.

When ECO-mode is activated, the 8 Series compressors automatically switch from a noload to unload mode, reducing fuel consumption by a further 50 percent. This translates to significant savings, as fuel consumption typically accounts for around 80 percent of the operating costs of a compressor. Importantly, utilizing ECO-mode does not delay productivity. Once the work is ready to resume, the compressor is back up and running in seconds.

Despite their lightweight and compact design, the air compressors are designed to operate reliably in the harshest environments. Atlas Copco's patented HardHat® canopy protects the compressor against the elements, and its plastic casing is resistant to corrosion and cracks, enabling it to endure tough use on site.

Finally, to further enhance uptime, the compressors have a service interval of 1,000 hours and can be serviced in under 60 minutes, without any special tools.



### New Lavina Elite Dust Extractors from Superabrasive

With industry-best technology and features, the all-new Lavina Elite V32 Dust Extractors take dust collection to a new level of performance and productivity. The four-stage process dramatically increases cleaning efficiency. An integrated pre-separator captures large particles to extend the conical M-Class filter, which is surrounded by a cyclone system to capture mid-sized particles. The filter also boasts high air permeability and a large area to provide better section and longer operating time between cleaning intervals. Finally, a H13 HEPA filter captures 99.95% of particles as small as .15  $\mu$ m.Other features include an integrated emergency lamp to remind the operator to clean filter, an automatic cleaning option, and a lighter, more compact body design. The V32 Dust Extractors are available in propane (V32GE - 470 cfm) and electric (V32E - 490 cfm, 220V or 480V) models.

www.superabrasive.us



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### reports

Hydrodemolition Specialist Conjet Aims to Raise Its North American Profile.

Pandemic restrictions may have muted New Year's celebrations in many cities, but Conjet provided some fireworks of its own in early January by launching a concerted effort to gain a greater share of North America's emerging hydrodemolition market

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The first day of 2021 marked the official formation of a U.S. subsidiary—Conjet, Inc., which hopes to have its new Charlotte, N.C., headquarters fully operational by June with a showroom, demonstration, training and service facility to educate current and potential customers on how to optimize the equipment's productivity and capabilities.

Although Conjet has had a U.S. presence since 1984, the company has served customers largely through third-party distributors. Conjet, Inc. CEO Stephen Sistrunk says the time was right for a change.

"We recognized that to serve our customers in the best way possible – specifically, understanding their needs and being able to rapidly meet those needs – we must be in direct contact with them," explains Sistrunk, who as a partner in Conjet investor Gulfstream Nordic Holdings, has been very active in helping the company improve its presence and customer offerings in North America.

Sistrunk adds that the "overwhelming" number of structurally deficient highways, bridges, dams, and other mission-critical infrastructure assets in the U.S. can greatly benefit from hydrodemolition—a proven sustainable, safe, and efficient rehabilitation method.

"By being 'on the ground' Conjet can help to educate key decisionmakers on the benefits of our Automated



Stephen Sistrunk, partner in Gulfstream Nordic Holdings and CEO of the recently set up Conjet, Inc.

Conial



Concrete Removal [ACR™] technology, which has been developed and refined based on our nearly 40 years of hydrodemolition experience, " he says.

#### At the forefront

Conjet traces its roots to Swedish industrial manufacturing conglomerate Atlas Copco AB, which began developing hydrodemolition technology in 1982 as an alternative, less destructive approach for restoring bridge decks. The company soon began selling hydrodemolition robots to Sweden's infrastructure contractors.

Conjet was spun off as a separate company in 1990, with many members of the original founding team still with the firm. As hydrodemolition has extended its reach worldwide, so too has Conjet. ACR<sup>TM</sup> robots and accessories are now utilized in dozens of countries, with Conjet's technical support experts readily available to help customers plan and carry out jobs of all sizes and complexity.

Still, Sistrunk admits that hydrodemolition's growth in the U.S. has been curtailed by an inaccurate perception of a "niche" category of demolition work, one that owners must explicitly request or specify in RFPs.

"The reality is that most specifiers are very open to using hydrodemolition on their projects," Sistrunk says, adding infrastructure owners are increasingly moving from a mindset of complete tear down and replacement toward long-term planning and preventative maintenance. He adds that hydrodemolition technology is well-suited for a world where COVID-19 jobsite safety measures may be in place long after the pandemic abates. "The automated capabilities of our ACR™ robots make the need for manpower and creates a safer work environment, both in terms of jobsite hazards and the need to socially distance," he says.

For these and other reasons, Conjet believes the scope of hydrodemolition applications will continue to grow, as the technology provides the strongest and longest-lasting medium for restoring concrete infrastructure with new overlays.

"Owners simply need to be educated on the benefits of the technology as well as the ACR<sup>™</sup> process," Sistrunk says, adding that a direct U.S. presence will help the spread that message, and enhance its ability to provide technical guidance to contractors.

Such support will be particularly helpful to contractors such as Pittsburgh, Pa.-based Penn Hydro, which participated in the renovation of the U.S. Bureau of Reclamation's Alcova Dam, a water storage and hydroelectric facility on the North Platte River in Central Wyoming (see sidebar).

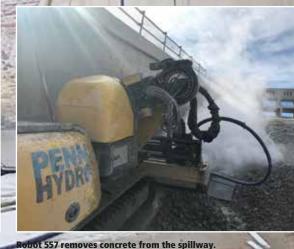
"Parts availability will be particularly important for us because we travel across the country a lot, with many projects in relatively remote locations," explains Penn Hydro President Oliver Scigliano. "If something's not working and there's no support, not much you can do."

Scigliano adds that Conjet's expertise has already been instrumental in helping his five-year-old company gain a foothold in the U.S. hydrodemolition market.

"They're very personable and easy to talk to, espe-







Conjet equipment on the job at the Alcova Dam project in Wyoming (see p. 25) A Robot 557 removes concrete from the wall in minutes.



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cially when you're trying to figure out the details of a project," he says.

### Going where the customers are

Several facets of Conjet's new North America strategy are already in place, with a particular focus on customer support. The company recently launched a rental program with high-pressure pump manufacturer Hammelmann Corporation that will increase the availability of ACR™ robots for demolition and surface preparation/cleaning jobs. A domestic spare parts inventory enables Conjet to rush replacement components to customer's jobsite in less than 24 hours

Conjet, Inc., has also invested in its leadership and customer support resources. In addition to Sistrunk, the company added Rick Larsson as U.S. National Accounts Manager. Larsson previously served as Export Sales Director and Regional Sales Director at HTC Sweden, HTC America, and Husqvarna USA. He also established and operated his own concrete grinding and polishing business for commercial, healthcare and industrial facilities.

Also joining the Conjet, Inc., team is Tim Best, the company's new Customer Success Manager for North America. With more than 20 years of experience operating hydrodemolition equipment and managing complex projects, Best brings vast expertise to support our customers with equipment operations, service, and project engineering

New Conjet products are on the way as well, with several releases planned for later this year. Conjet is also now the authorized reseller of a cutting-edge water containment and recycling plant, which will enable the first ever "complete water circuit" for hydrodemolition, improving sustainability and decreasing operating costs, particularly in areas where water is not readily available.

Sistrunk has no illusions about the challenges Conjet, Inc. faces in the Rick Larsson as U.S. National Achighly competitive U.S. market, partic- counts Manager at Conjet, Inc. ularly given the uncertainties of public funding resources in the post-pandemic economy. Still, he's heartened by the strong uptick in customers' activity during the second half of 2020.

"This year looks to be even more active," Sistrunk says. A good year could become even better with the pending stimulus package and talk of a comprehensive federal infrastructure funding measure later this year.

"Even if that does not happen, the fact remains that there is a massive backlog of concrete infrastructure Tim Best, Customer Success projects, so I would still expect to see America. steadily rising activity level in 2021."

Penn Hydro's Scigliano is likewise optimistic about hydrodemolition's future in the U.S. but cautions that contractors have to be ready to adapt their methods to changing customer needs and concerns.

"I see great things happening as long as contractors stay enthused about the business and thinking about new ways to do things," he says. "Conjet will help us do a better job, which will help us build trust and confidence among our customers. You may not always have the least-expensive bid, but if customers know you can perform, they'll stay with you."

www.conjet.com

## Wyoming Dam Undergoes **Hydrodemolition Face Lift**



As part of a comprehensive repair project for the earth-fill Alcova Dam, Pittsburgh, Pa.-based hydrodemolition contractor Penn Hydro was tasked with removing concrete from spillway floors and walls, as well as collection, treatment and disposal of the hydrodemolition wastewater.

Brad Beaudry, project superintendent for lead contractor NW Construction, says that compared with other concrete removal methods evaluated when planning this project, hydrodemolition was "much faster" and other removal methods "could not touch hydrodemolition in terms of speed."

A three-person team from Penn Hydro mobilized a Hammelmann pump and a Conjet Robot 557 for the cross-country trek to Wyoming. Conjet customer success manager Tim Best ensured all equipment was in working order, and that the team wound have ready access to spare parts and other materials to prevent a project slowdown.

A pre-project survey uncovered additional areas for repair along the floor of the spillway, which were added to Penn Hydro's assignment. Despite the expedited schedule necessary to complete the expanded scope of work, the versatility of the Conjet Robot 557's standard arm ensured high production and rapid reconfiguration from horizontal to vertical removal.

What's more, the single Robot 557 was all the Penn Hydro team needed to remove 9,535 ft3 (270 m3) of 5,000 psi (345 bar) concrete in just under two months—a pace that ensured the hydrodemolition work would be complete before the frigid temperatures of a Wyoming winter set in.

Depths averaged 150 on the spillway floor, and 380 mm on the wall caps.



Ready to pour new concrete.



Robot 557 and the Hammelmann Power pack on the dam crest.



Overview from the Alcova Dam.



Structural joint opened using hydrodemolition.



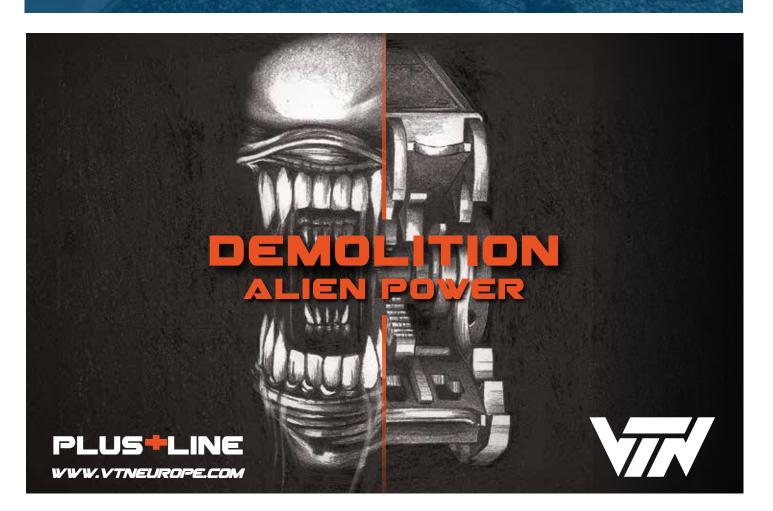


Manager for Conjet, Inc in North



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### Atlas Copco Adds Four Models to Versatility Range

Atlas Copco has extended its Versatility range of mobile compressors with the launch of XAS 188-10 PACE, XAS 188-14 PACE, XAS 288-10 PACE, and XAS 238-14 PACE. With this addition, Atlas Copco's Versatile range offers

operators optimal fuel efficiency and increased productivity. Atlas Copco's innovative PACE (Pressure Adjustment through Cognitive Electronics) system offers the widest operating pressure range within a single compressor, allowing multiple pressure and flow combinations. PACE



extends the operating spectrum for a single compressor from 72.5 to 203 psi (5 to 14 bar). This increased versatility boosts the utilization rate of the compressor, providing extra productivity as it gives more flow when operators lower the pressure. Therefore, the new compressors are ideal to use in a wide range of tasks, from paint spraying to handheld tools, abrasive blasting, shotcrete, cable blowing, and drilling.

The PACE system resides within Atlas Copco's Xc2003 controller, which has an intuitive color LCD screen-based user interface. Operators can easily change the pressure setting



with increments of 0.1 bar in just three easy steps. The system keeps track of compressor utilization and prompts for planned service interventions. The Xc2003 maintains the com-

pressor's environmental resilience with its IP65-rated dust and water protection. All compressors in the Versatility range come with Atlas Copco's patented HardHat® polyethylene canopy to protect the compressor against elements. This cover is durable, light, corrosion-resistant, and virtually indestructible, ensuring a high resale value at the end of the compressors' lifetime.

The four new models feature ECO-mode to help operators revolutionize fuel efficiency. This innovative technology from Atlas Copco helps reduce the cost associated with running compressors on idling mode during downtime, for example, when changing parts in machinery or moving equipment to new locations on the site. When ECO-mode is activated, the XAS 188 and XAS 288 compressors automatically switch from a no-load to unload mode, reducing fuel consumption by a further 50 percent. Relevantly, utilizing ECO-mode does not delay productivity. Once the work is ready to resume, the compressor is back up and running in seconds.

The Versatility range has been designed to work reliably in ambient temperatures of 10 to 113°F (25°

to 45°C ). Additionally, the compressors in this range feature a strong, 110 percent spillage-free frame, eliminating any risk of ground contamination because it contains all the machine's fluids.

Simplicity of service was clearly

factored into the design of the range. Each model is easy to access and requires an oil service just once every two years. Thanks to the new patented oil separator vessel of the four new models of the Versatility range, the oil service takes 30 minutes.

### New FR200 Genus Scarifer from VonArx

VonArx has launched a new and improved 8-in (20cm) FR200 Genus Scarifier. Along with significantly low vibration levels that reduce injury risks for operations, the FR200 Genus has improved dust pick-up capabilities with a larger, repositioned dust port to maximize capture of dust and debris that the machines create.

Founded in 1941, VonArx specializes in surface preparation equipment for the construction, road, and maritime industry. Machines are well known and respected for their high quality

and performance. Since 2019 the company has its base in Plovdiv, Bulgaria and continues to develop high quality equipment for works health in focus.

www.vonarx.com





# Dynaset Launches Vacuum Products

Dynaset has introduced a new vacuum product category with the arrival of its new Hydraulic Recycling Vacuum Bucket (HRVB) and the Hydraulic Centrifugal Fan (HCF). 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 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 pro-

vide 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 120 ft3/sec (3.4m3/sec), an auxiliary suction port and vacuum hose for foot work as well as an adjustable suction hatch. Users can adjust the hatch via hydraulics from the cabin.

The 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. As with the the HRVB, the HCF also provides air blow/vacuum within one single unit, and offers an air flow from 28.2 to 120 ft3/sec (0.8 to 3.4m3/sec). The HCF is CE-marked, and the unit cools itself without external cooling. Both the HRVB and the HCF are used in industries such as construction and earthmoving, demolition and recycling, environment and infrastructure.



www.dynaset.com





# Trevi Benne, Still a

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 major producer of hydraulic attachments with 80% of its business coming from exports.

Italy 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 PDa Magazine's oldest advertisers, and one that the magazine has reported on many times, is Trevi Benne, located in Noventa Vicentina in Northern Italy.

Although Trevi Benne is a year away from its 30th anniversary in business, it still has the pioneer attitude of a young and vibrant company, eager to develop and find new revolutionary attachment solutions for its clients. Still family-owned, the company is 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; eight in purchasing and quality control; and six working with logistics, spare parts, and warehousing.

Trevi Benne started out in 1992 with only 10 employees, including the founder and his three sons, working from a total production area of 29,000 ft2 (2,700m2). Since then, the company's commercial, technical and production facilities have grown tenfold, with more than



Luca Vaccaro with one of the first concrete crusher sfrom Trevi Benne in 1996.

80% of its production is exported to dozens of different countries.

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 approximately 5,500 buckets and attachments and 1,200 demolition and recycling attachments. Plans are now underway to expand production space by another 21,500 ft2 (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 realization of the first models," explains Trevi Benne marketing manager Christian Tadiotto, who has been with the company since 1997. Above all, he adds, is the inability to purchase the correct wear resistant materials and the lack of knowledge of the behavior of the materials themselves in the actual demolition phase.

"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," Tadiotto says. "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 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 pulverizers."

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 composed of 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," says Tadiotto.

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 customized, using different components and materials according to the user's requests and needs. With a catalog of more 120 pages, and more than 5,500 buckets produced per year, it is obviously difficult to determine the right number of models.



Trevi Benne owner and CEO Luca Vaccaro.



Trevi Benne's marketing manager Christian Tadiotto has been with the company since 1997.



Trevi Benne managing director Michele Botton.

"We can only say that from a mini excavator of 1.5 tons to the 500-ton mining excavator, we can produce everything," explains Tadiotto.

### Producing what the customer needs

Trevi Benne is a manufacturer that builds what the customer needs, with there being many bespoke attachments



Luca Vaccaro (middle) is owner and CEO of Trevi Benne. He's flanked by Alessandro Lembo, sales (left), and Christian Tadiotto, marketing managerstanding in front of the huge concrete crusher, HC 250, weighing over 27t.

built over the years. Custom production represents some 20% of the company's sales.

"We are not series builders and we do not have an organized production process for repetitive serial production," Tadiotto says. "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, and cylinders, we can optimize production and manage almost in a standard way many parts of the equipment."

One of the most ambitious projects completed was the construction of the HC 250 primary crusher weighing 27.5t, the biggest ever and a project Tadiotto calls "a huge challenge from every point of view. From receipt of an informal request in November 2017 to delivery in August 2018, the project passing through meetings with engineers, preliminary projects, estimates, and order confirmation. All this having to strictly comply with four specific customer requests—a weight should be suitable for a customized 300t excavator, a high penetration jaw profile without blades, a jaw opening of 10 ft (3m) and tip force of more than 400 tons.

After more than 500 hours of production, Trevi Benne had crafted a monster jaw of 5m long, with a jaw opening of 10.1 ft (3,100mm) and a tip force of 425t "I have never seen something like it," says Tadiotto.

### 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. Owing to the pandemic-forced six-week factory closure, revenue dipped in 2020. Still, Trevi Benne managed to reach a prestigious record by delivering its 10,000th concrete pulverizer.

The company's network of approximately 00 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.

"It is equally clear that with the current coronavirus situation it is complicated to make strategies, budgets and medium- and long-term plans, says Tadiotto. "The absence of trade shows 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."

After a year where the professional sales work mainly has consisted of numerous webinars, video talks, video



Trevi Benne's manufacturing facility in Noventa Vicentina, Italy.

conferences, etc., Tadiotto and his colleagues are waiting to take up travelling and meet customers in real life again. He 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.

Tadiotto 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 im-







measurable will to get to work and to restart again," he says. "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 how it may have been changed by the pandemic.

"Competition itself is not a bad thing; It is almost part of the market equation," Tadiotto says. "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."

Tadiotto adds that in the demolition profession,

anyone who buys demolition equipment knows exactly what he or she wants.

"In our world, the user is truly an expert and often knows more than us how the attachment should work," he says. "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."

www.trevibenne.it



Trevi Benne Multi Kit series in action.



Customers are Trevi Benne's most important asset.



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# Brokk Introduces

# World's Most Powerful

# **Demolition Robot**

Ten years after setting a new benchmark for demolition robot power with the Brokk 800, Brokk introduces the all-new Brokk 900. Leveraging the success and experiences of the predecessor, the new robot meets the extreme requirements of the toughest hard rock underground work.

The Brokk 900 is a big step up from the predecessor in many ways. The design and engineering of the machine is reinforced, the power is increased, its operation even more precise, and the new breaker is more powerful. And all this with almost no increase in size and weight.

Using Brokk SmartPower™ technology to improve the powertrain, the Brokk 900 delivers a 25% increase in output power. At the same time, reliability and machine uptime meets the new industry benchmark for demolition robots set by the introduction of Brokk SmartPower™ a few years ago.

The Brokk 900 comes in two different models. The standard Brokk 900 comes with the option of two different hydraulic breakers—the 3,300-lb (1500kg) BHB 1500 for super-hard materials, and the slightly lighter 2,866-lb (1,300kg) BHG 1300 for maximum productivity in heavy concrete demolition. When not breaking tough granite rock, the higher blow frequency and more nimble size of this breaker will maximize the production rate.

The Brokk 900 Rotoboom is designed for maximum flexibility in applications where access and precision are more important than power. In addition to a 360-degree continuous boom rotation with smooth movements for maximum precision, the Rotoboom is heat-protected for red-hot refractory work in metal plants. It also

BROWN

comes with Brokk's patented heat-shielded hydraulic breaker. Both Brokk 900 models come with the option of electric or diesel powertrain. The electric motor is the obvious choice for both lowest cost of operation and most environmentally friendly. However, the new diesel engine is not far behind, meeting the toughest emissions standards that exist today. It is compliant with both the US EPA Tier 4 Final and EU Stage V standards.

Finally, the Brokk 900 takes serviceability up a notch. Despite weighing more than 11 tons, the model is designed to be serviced by one person. No heavy lifting needed.

The Brokk 900 will be available in mid-2021. **www.brokk.com** 

## Aquajet Training Options Provide Customized Solutions

Aquajet offers on-demand training options to maximize productivity and safety on the jobsite. In addition to in-depth, hands-on training with each machine commission, Aquajet's provides continuing education options on-site or through its network of facilities across the U.S. Training is tailored to customer need and operator experience to ensure long-term Hydrodemolition success.

Training by a specialized 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

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, maneuvering 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 customizable, in-depth curriculum designed to help optimize operations and efficiency. Known as the Aquajet Academy, this multi-day program 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 Hydro-demolition method and equipment and how to leverage it for a competitive advantage. Again, the curriculum can be customized to the customer's needs and it can be held on-site or at one of the U.S. facilities—Monroe, Wash.; St. Joseph, Mo.; and Stanhope, N.J.

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



# Adamo Demolition Discovers New Metal Recovery Possibilities with Sennebogen Fleet

Detroit-based Adamo Group has been a leader in the North American demolition industry for more 50 years, taking on large decommissioning projects throughout the U.S. and Canada. With the new SENNEBOGEN fleet, ranging from mobile material handlers 821 E up to 840 E, Adamo has created a valuable new revenue stream and increased loading and logistics efficiency.

Like most demolition contractors, Adamo was accustomed to using specially-equipped long-reach excavators to tear down structures, then further machines with a grab followed up to pick through and load the debris for disposal. It was in 2004 that the company first experimented with attaching a magnet to an excavator to pull out rebar and other ferrous scrap from the piles of rubble.

"We were floored by the amount of scrap we were recovering," Richard Adamo, President of Adamo Group, recalls. At the time, he had a team working on a big project, with a large volume of metal in the structures. "Look at the recovery we can get – all this material we've been sending to the landfill, picked as clean as you can get it."

A short time later, Adamo took advantage of an opportunity to acquire a used material handler for the first time, which demonstrated the advantages of replacing excavators with purpose-built material handlers for the task at hand. Their mobile undercarriages offer essentially more flexibility on the construction site than tracked excavators when it comes to getting from A to B. And they are designed for heavy lifting and constant horizontal rotation under load, which results in less stress on their parts when performing these movements. With projects scattered across the country, the ability to transport equipment efficiently is a key point in planning. Larger sites also call for machines that travel quickly between work zones under their own power. And, as in any major project, reliability through long operating shifts is essential to meet deadlines. "SENNEBOGEN has a great dealer network and the dealer support is simply outstanding," Adamo. "We have had no issues with downtime or parts availability."

The fleet was expanded recently to include even larger material handlers. Adamo is just as pleased with the other machines that Alta has supplied. He purchased an 825 E soon after seeing his first 821 E, then larger 830 E models, all in the mobile version with solid tires, were added for new projects.

As the latest acquisition, a SENNEBOGEN 840 E was acquired for a power plant project in Ohio, where barge loading operations required a heavier machine with longer reach. The laydown area is located near the barge facility, a considerable distance from the demolished structures on the site.

First, the 840 E starts to load off-road trucks with the recovered material, which delivers the scrap to the laydown area. Once enough material is accumulated, the 840 E is driven to the river to fill the barge.

"Our biggest accomplishment, really, is segregating the metal to recycle," says Adamo. "We were among the first to use the magnets for sweeping and cleaning the piles. We are now getting paid for material that otherwise would have been a cost for tipping fees at the dump."

#### www.sennebogen.com

Adamo Demolition uses a magnet-equipped mobile version of the Sennebogen 840 E to extract and transfer metal scrap from construction debris.



Industry veteran Peter Bigwood joined Mecalac in September 2019 to spearhead the French-based compact equipment manufacturer's entree into North America. While establishing a new brand in a highly competitive market is always challenging, few could have imagined the upheaval caused by the coronavirus pandemic. Still, Bigwood is pleased with both Mecalac's progress in securing a market foothold, and the company's prospects as the construction industry gradually regains its footing. He shares some thoughts with PDa readers on his new company and what it will offer contractors as they get back to work.

### What attracted you to take on the role of General Manager of Mecalac North America?

report

Innovation. Mecalac products are like nothing else on the market. The company focuses on solving common jobsite problems and creatively developing products to improve safety, versatility and efficiency. Mecalac offers a new dynamic, a point of differentiation and potentially new market segments and applications. Who wouldn't want to be part of growing such a unique and exciting brand?

Then there's also the challenge. Mecalac is well-established in Europe as a global designer, manufacturer and distributor of compact construction equipment for urban environments, and a recognized industry-leader in many of their product categories. However, they only recently made a significant investment in North America by establishing a headquarters and dealer network. Bringing these innovative, highly differentiated products to a new market and helping educate new audiences on their unique functionality was the perfect opportunity.

And, of course, I don't just want to grow the business. My goal is for Mecalac to achieve the same level of success it has accomplished elsewhere. But the rules are a little different in the North American market. Challenging myself to meet Mecalac's international success in the U.S., Canada and Latin America seemed like the perfect opportunity to put my more than 30 years of experience to the test. I have to say, so far, so good.

### For those who may be unfamiliar with Mecalac, can you give us a quick company profile?

Mecalac was founded in France in 1974 and has since grown to include sales offices, distributors and customers

# Mana New I

in more than 87 countries. —excavators, loaders, backhoe loaders, site dumpers, and compaction rollers—that Most Mecalac machines are designed for multifunctionality, built to reduce the number of machines needed on the jobsite.

What's more, the company is internationally renowned for its innovative, customer-focused technology. We challenge the traditional way of doing things and try to make the impossible possible, enhancing productivity, profitability and safety with our innovative solutions. Mecalac owners need to be willing to approach tasks in a new way. And if you do, it really pays off!

#### North America is a very large and lucrative, but also competitive market for construction equipment. What will help set Mecalac apart?

To put it simply, there's nothing on the North American market like Mecalac equipment. Their design teams use the information gathered from end-users to create multi-functional products that allow our operators to get more work done with fewer pieces of equipment. The result is game-changing machines poised to completely alter how contractors look at construction equipment.

For example, Mecalac incorporates ease-of-use benefits into all of their equipment, including a high level of visibility or the ability to fill the tank like you would fill your car. Additionally, Mecalac is the only manufacturer to offer a quick coupler as standard. The coupler — which took years of engineering creativity to develop — is deceptively simple and virtually eliminates the risk of dropping an attachment.

Safety features are another differentiator. Excavators, site dumpers and the rest of the product lines offer direct and safe access to the cab, reducing the risk of injury while entering or exiting the equipment. This is key because studies show that about half of all jobsite injuries occur when stepping in or out of the cab.

### reports

# ging Mecalac's

Frontie

It all comes back to innovation. Soon, North American contractors will realize Mecalac offers them a way to do more than they ever thought possible with a single, multi-operational machine.

#### What is Mecalac doing to "introduce itself" and raise its profile in North America?

While global conditions have slightly amended our introductory fanfare, we have still been working diligently to grow our North American presence. The cancellation of tradeshows has been a disappointment. The ConExpo/ ConAgg crowd witnessed our captivating 20-minute, precisely choreographed demonstrations that highlighted the mobility, productivity and versatility of Mecalac equipment in a number of common jobsite applications. But we were unable to get in front of other audiences in a similar fashion over the course of the year.

However, trade shows were ever only a small part of our plan. A strong dealer network is the key to raising a brand profile, so finding the right North American partners was top priority. Mecalac's relationship-based philosophy means it only enters a market when it has the right support in place and has identified partners who share its values and are excited about its products. These partners believe

in the Mecalac approach and share our vision for reshaping the way contractors work. Like us, they have a passion for finding new solutions and servicing customer needs in a way few companies do. We welcomed five North American dealers to our network in 2020. These dealers significantly expand our coverage across the eastern U.S., as





well as provide a toehold on the West Coast and in several key Canadian markets. These partnerships increase access and customer support for existing Mecalac customers and help bring the company's innovative lineup to new regions.

As we move into 2021, we will continue identifying and partnering with new dealers. In fact, talks with several potential additions are already underway. We're excited about our growing North American network and look forward to increasing access to Mecalac products and services across the continent.

#### The last year has been a pretty bumpy ride for everyone. How do you see the North American market recovering and unfolding in the coming months?

2020 was a challenging year for contractors and equipment manufacturers around the world, including Mecalac. Not the ideal circumstances for entering a new market. However, Mecalac's innovative product lines have struck a chord with U.S. and Canadian contractors, making our North American debut a resounding success.

Despite positive movement at the end of 2020, we expect the construction market will remain unpredictable and turbulent well into 2021. Decreases in demand resulted in many of our industry peers restructuring/downsizing. There's little reason to believe that the situation in 2021 will suddenly stabilize. However, we believe our crawler skid excavators and swing loaders are ideally suited to help the North American market bounce back by streamlining jobsites and injecting game-changing productivity. We are fortunate to be in the part of our growth cycle where adding new dealers — despite uncertainty in the market — is a key driver of increased sales. End-user interest in Mecalac, through social media or simply word-of-mouth, has inspired more dealers to reach out to us, which makes our job that much easier.

#### Any thoughts on if and how the post-pandemic construction equipment market will differ from "before times"?

We were already on this path, but being able to do more with less will be vital moving forward. How contractors bid, staff and equip jobs will be streamlined for both safety and budgetary reasons. Multi-purpose machines that can do more than one job and do them well can reduce traffic and the number of operators necessary for a job — helping meet social-distance guidelines while keeping labor costs down.

Industry-leading power-to-weight ratios will also be important, especially for urban jobsites where a smaller unit able to lift above its weight class means a smaller footprint and less room required to maneuver. Products like Mecalac's MCR series that can not only do more, but often do it better, aren't the wave of the future — they're the tools contractors need right now.

### What advice would you offer demolition and waste hauling contractors as they try to navigate the "new normal"?

Demolition and waste handling contractors are a hearty group. Most have experienced the ups and downs of changing economies and the challenges of ever-changing policies and regulations. Adaptability is an industry requirement. And it's a trait that will be critical in navigating the current economic conditions. Whether it's looking for tools that allow them to diversify their business — offering new services or tackling different projects — or solutions that help them reduce fleet costs and safety liabilities, adaptability will lead to continued success in this economy or any other. I have every confidence that they will, as they have so many times before, emerge stronger, wiser, and better than ever.

#### www.mecalac.com

### site report

# Innovative Robotic Solution Provides Productivity for Philippine Bridge Project

Bridging

Construction is currently underway in the Philippines on a massive bridge system connecting Cebu City with Cordova on the southern end of Mactan Island. The 5.3-mile (8.5km) Cebu-Cordova Link Expressway, slated for completion in 2021, will span the Mactan Channel to ease congestion and boost economic activities throughout the region by providing additional access to the island and the Mactan-Cebu International Airport for an estimated 50,000 vehicles a day.



To protect rebar and the existing good concrete, Asia Waterjet Equipment knew Hydrodemolition was the only solution. The non-intrusive method uses high-pressure water jets as powerful as 40,000 psi manipulated by an automated robot to remove layers of deteriorated and damaged concrete.



The uneven, muddy terrain at the jobsite presented no problems for the self-propelled Aqua Cutter. This minimized necessary site preparations and helped accelerate repairs.

As one of the largest infrastructure projects in the country, the new bridge relies on a carefully choreographed plan of simultaneous operations to meet strict deadlines. When a bad batch of concrete threatened to derail progress on one of the bridge's first pylons, project managers needed a creative solution that could quickly remove the poor-quality concrete without damaging the rebar or putting the project behind schedule. Hydrodemolition was the only process with the precision and productivity to keep the project on track.

Cebu Link Joint Venture (CLJV) contacted Singapore-based Asia Waterjet Equipment, the region's premier hydrodemolition experts. Access and site conditions presented quite a challenge, but with decades of experience in some of the most hazardous applications, Asia Waterjet Equipment was more than up to the task. With the clock ticking and monsoon season in full swing, the team arrived onsite with an Aquajet Aqua Cutter 710V Hydrodemolition robot and Jetstream HP Waterjetting Pump.

#### **Troubled Water**

Access was the primary problem. CLIV was conducting construction on several bridge pylons simultaneously. To minimize disruptions to the local community, the project's primary staging area, as well as the initial pylon, were only accessible from the coast. This meant the concrete had to be mixed 1.6 miles (2.5km) down the coast then transported by barge to the jobsite. From there, the barge was grounded, and the trucks disembarked directly onto the beach. The pylon was nearly 100 ft (30m) inland.

Overall, the transportation delay had no negative impacts on the concrete, and 52.5x45.9-ft (16x14 m) pylon quickly grew to 13 ft (4m) tall. However, a complication with a single delivery threatened to throw the entire project behind schedule and over budget.

Crews knew there was a problem immediately. The concrete was already setting as they pumped. Vibrating and other correctional methods failed, and the pour was ultimately unsuccessful. Even worse, the concrete fell 13.8 in (350mm) short, leaving a mesh of exposed rebar.

For CLJV and Asia Waterjet Equipment, the challenges were adding up, making for a very difficult repair. The pylon was nearly complete. While CLJV had budgeted time and money for small complications, it could not afford to demolish the whole pylon and start over. Crews with handheld breakers or excavators could remove the poor-quality concrete, but only by destroying the rebar. They would have to cut the exposed rebar at the top of the pylon to access the concrete a foot below. More rebar would be damaged as the poor-quality concrete was removed, and microfractures from the vibration of jackhammers or excavators would weaken the remaining concrete, jeopardizing the pylon's integrity.

"There was no option; the rebar and existing good con-

crete had to be protected," says Chris Parkhill, Asia Waterjet Equipment Sales Director for Southeast Asia. "Had CLJV gone with traditional demolition methods, they'd have to open, pry apart where possible or cut the rebar and manually jackhammer out the bad concrete. There's no guarantee a man using a jack hammer could gauge what's good and what's bad, so they'd end up removing extra. Then they'd have to bend the rebar back into place without breaking it, or weld or cut new threads and join with it threaded couplers. It would add weeks to the project and a significant cost to the budget. They simply couldn't afford it."

Asia Waterjet Equipment knew hydrodemolition was the only solution. The non-intrusive method uses high-pressure water jets as powerful as 40,000 psi manipulated by an automated robot to remove layers of deteriorated and damaged concrete. The Aqua Cutter 710V's high-pressure water jet leaves a rough, irregular profile after removing the initial layer of concrete that results in a better bonding strength. The robot also cleans and descales the exposed rebar and removes non-visible contaminants such as dirt, mud, foundation mud, salts, chlorides and sulfates.

#### **Building Bridges**

Productivity was also a concern. With simultaneous construction continuing on several other pylons in the area, crews needed to remove the poor-quality concrete and complete repairs quickly — with minimal labor.

With the ability to complete concrete removal tasks up to 25 times faster than a hand lance, the Aqua Cutter provided the necessary solution to keep the project on schedule. Asia Waterjet Equipment brought in Aquajet Special Application Manager Kjell Isaksson to support the operation.

"There were a lot of variables and no room for error," Parkhill says. "To minimize the risk of delays, we decided it would be best to have an Aquajet specialist on site."

Like the cement trucks, the Aqua Cutter and all support equipment, including a high-pressure waterjet power pack with a 4200 series Jetstream pump, had to access the site from the Mactan Chanel. Proximity to the water and the frequent, heavy rains of monsoon season made ground conditions difficult. However, since the Aqua Cutter is self-propelled with tracks, the uneven, muddy terrain presented no problems for Asia Waterjet Equipment. This minimized necessary site preparations and helped accelerate repairs.

#### **Crossing the Bridge to Success**

This mobility was also necessary for tackling the demolition itself. Once lifted onto the pile cap by a crane, the Aqua Cutter was able to easily maneuver over the rebar. The high-pressure pump was set up 23 ft (7m) away and connected to the hydrodemolition robot by a high-pressure hose. To help reduce cost and increase production, Asia Waterjet Equipment opted to use seawater for



# the Gap

When a bad batch of concrete threatened to derail progress on a major bridge project in the Philippines, Asia Waterjet Equipment turned to Aquajet for a creative solution that could quickly remove the poor-quality concrete without damaging the rebar or putting the project behind schedule

With the ability to complete concrete removal tasks up to 25 times faster than a hand lance, the Aquajet's Aqua Cutter provided the necessary solution to keep the Asia Waterjet Equipment's project on schedule.

the majority of the demolition rather than bring in fresh water. The company continually filled two 5,283-gallon (20 m3) night tanks directly from the Mactan Chanel. Fresh water was only used during the last two days of the project to remove salt and other impurities that could impact bonding. Using the Hydrodemolition robot, operating at 15,000 psi (1,000 bar), and two employees, Asia Waterjet Equipment needed just days to remove 13 yd3 (10 m3) of poor-quality concrete at a depth of 6-10 in (150-250 mm).

"With the Aquajet Aqua Cutter, we increased productivity to a point where construction was back on schedule," Parkhill said. "Without Hydrodemolition, there's no way CLJV would have been able to do that."

www.aquajet.se



Using the Hydrodemolition robot, operating at 15,000 psi (1,000 bar), and two employees, Asia Waterjet Equipment removed 13 yd3 (10 m3) of poor-quality concrete at a depth of 6-10 in (150-250 mm).



Crews with handheld breakers or excavators could remove the poor-quality concrete, but only by destroying the rebar. Asia Waterjet Equipment knew Hydrodemolition was the only process with the precision and productivity to keep the project on track.



# **CBE CRUSHER BUCKETS**



Designed to **reduce the volume of aggregates** directly on site, CBE crusher buckets with rotor system provide **optimal performance when working with iron, rock, soil and deformable parts,** and wet or humid materials. Ideal for **crushing reinforced concrete and demolition waste**. The exceptional cutting force allows any material to be crushed. Automatic system **inverts rotation of the drum in case of blocking** (Simex patent).

✓ HIGH CUTTING FORCE
 ✓ HIGH PRODUCTIVITY
 ✓ LIGHTWEIGHT FRAME
 ✓ NO VIBRATIONS

 EASY BACK OR FRONT LOADING
 SIMPLE, QUICK TOOL REPLACEMENT
 ANTI-WEAR TOOLS: BETTER PROTECTION AND LONGER LIFE

simex.it

### **Higher Hydraulic Flow and Better Ergonomics With Rototilt OuickChange**

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.

The fully automatic guick 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 Secure-Lock 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.

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 than 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 welcome the system.

"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," says Johan Lindberg at Lindbergs Last och Planering in Norsjö, Sweden. "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."

Colleague Matti Ainasoja adds that being "a bit traditional," he was skeptical about QuickChange. That's changed after a year of experience. "The feeling is a bit like

Vibration Issues

**Dymatec: The Solution to** 

Dust, Noise, Fumes, and



when you have just taken a driving license, the freedom," he says. "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, according to Robert Viklund of Viklunds Gräv AB in Sweden. "I save several hours every day," he says, "but the most important thing is still not the time, but that the job is done in a safe and correct way."

#### **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 in the standard.

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

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. www.rototilt.com

## **Brokk Connect Keeps Robot Users in Touch** With Operations

Brokk Connect, a hardware and software solution uniquely designed for Brokk robots, connects the machine to an online portal where users can track and manage their machines. In addition to providing real-time data, Brokk Connect analyzes information to help owners optimize machine utilization and machine uptime. Combined with a Brokk Uptime service agreement, Brokk Connect enables customers to fully focus on maximizing the value of their business.

Connected to both the machine's control unit and all the sensors, Brokk Connect is uniquely designed to process and analyze all the data from the robot to help owners and operators to always be in full control.

## BROKK CONNECT

To ensure optimal coverage, the connection to the robot is linked via the user's mobile phone network.

Through the online platform, users can locate and manage the entire robot fleet, get precise information of every activity, and receive alerts of needs for attention or service requirements. Brokk Connect will be available to users worldwide by the end of 2021 www.brokk.com

New Dynaset HPW 160 is Perfect for Dust Control

Dynaset's has added the HPW 60 model to its lineup of hydraulic high-pressure water pumps. This new model is specially designed to for dust control applications. The most obvious feature differentiating the HPW 60 from other HPW pump models is the power output. This pump produces 2,321 psi (160 bar) of pressure and a flow of 4.7 gallons/min (18 liters/min). As a

piston model, the HPW 60 is the smallest of the HPW lineup-4.3 x 8.2 x 3.9 in (110 x 210 x 100 mm). Yet despite its small size, the pump's 6.4-hp (4.8kW) output power still beats most of the electric power

can be used for dust suppression of small pulverizers and drilling rigs. As with other HPW pumps, the new model is available in three versions: basic, with no additional valves; equipped with a water unloader valve for power washing applications, and the VR-PA that includes a special valve to keep hydraulic oil flow within the set value.

www.dynaset.com

Dymatec offers a solution for fast, controlled demolition of concrete via their range of hydraulic tools that can be run from a single-phase electric power unit. Their modular system of concrete splitters, concrete crunchers, and rebar cutters - all requiring only a single operator - is becoming increasingly popular for concrete removal projects located in areas inaccessible by larger machines, or in sensitive areas such as hospitals, schools, offices, or any occupied building where noise, fumes, and vibrations are an issue.

www.dymatec.com



washers. The HPW 160

news\_

# **OilQuick Reacts to Open-S**

Last year, PDa wrote about the new "Open-S," a new open standard for fully automatic quick couplers. Open-S is owned and managed by Open-S Alliance, an independent organization led by a council of engineers from tiltrotator manufacturers Steelwrist and Rototilt.

Åke Sonerud, the chairman of OilQuick, a well-known manufacturer of automatic quick couplers, has now in an open letter to the machinery contracting market and the trade press commented on Open-S's intentions.

### Open-S –

The emperor's new clothes? You have probably read about launch of Open-S for fully automatic guick coupler systems for excavators. What is this all about you ask yourself? In short, it is the emperor's new clothes - with borrowed feathers. Both tiltrotator manufacturers, Rototilt and Steelwrist, have the ambition to create an open world standard for fully automatic quick couplers. To achieve an international standard, beginning in Europe, requires an established standardized product solution, a wide consensus and acceptance in the machinery industry, as well as an approval process in the European Committee for Standardization, CEN. None of which is in place, as I understand it. It also gives the appearance of Open-S being an established part of the Swedish independent S-standard for symmetrical frame couplers which was introduced 20 years ago, on my initiative, under the auspices of the machine suppliers. This Nordic de-facto S-standard regulates, as it is well known, the interface between S-couplers and mechanical attachments.

There are now a number of fully automatic company solutions based on the S-standard: OilQuick's OQ system, Engcon's EC-Oil, German Kinshofer and Lehnhoff's variants, and most recently Steelwrist and Rototilt with their OilOuick like solutions. I have noted with great interest that even the world's leading manufacturer of tiltrotators, Engcon, also says no to Open-S. When it comes to Steelwrist and Rototilt, their fully automatic solutions are very much a matter of "borrowed feathers." It is important to note that Open-S is only a company standard for Rototilt and Steelwrist, and can be compared with OilQuick's partner program "Clean Systems." even if Open-S has been placed in an independent organization to give it more legitimacy. I want to be very clear that we at OilQuick are not against standardization to simplify and make things easier for equipment dealers and users. However, we see great danger and huge problems in the current situation with this so-called standardization and



Åke Sonerud, OilQuick.

the subsequent mixing of products and suppliers.

#### Lack of compatibility between different systems

I think that it is very difficult to get an open standard with many different suppliers of couplers and attachments, as well as a free mix of products, to work fully without problems, especially if product changes and policy decisions are to be taken in an independent organization consisting of competitors.

Having done this for over thirty years and having sold more than 33,000 OilQuick systems globally, we at OilQuick have long experience of this problem. Managing a mechanical system with mixed suppliers is generally OK. A loose bucket or attachment caused by poor quality and fit may last for several months, maybe even years, but if a fully automatic system fails or leaks oil it must be remedied more or less immediately. Two completely different worlds. My father John always said that you do not know who you are dealing with until you have to deal with them about a complaint. Who do I call in the event of a problem and have a mix of fully automatic couplers and attachments from different suppliers?

Different applications and system solutions require different electrical and oil connection configurations. Several different suppliers require a clear standardization of how electrical, grease, and oil connections are used. Standardization is desirable but not always possible to achieve without making too many compromises and concessions. I see many obstacles when it comes to agreeing on this. Product knowledge, advice and system overview will be even more important in the future.

#### Huge safety risks with mixed systems

Safety is very important when it comes to using quick coupler systems on excavators, especially on fully automatic quick coupler systems in combination with tiltrotators where a number of mechanical and hydraulic attachments can be changed 50-100 times per working day.

Mixing couplers, attachment adapters and control systems from different suppliers then creates uncertainty and poses a large unchecked risk of accidents. Many manufacturers currently use sensors to monitor their attachment locks. Poor quality, poor fit and incorrect tolerances in the system can then have catastrophic consequences. The same applies to electrical contacts and their different uses. We do not believe that mixed systems are the solution to these obstacles.

### Responsibility and system support

It is difficult to have clear and unambiguous system responsibility with a lot of different companies involved. We believe in clear and defined system responsibility which allows good system advice, as well as fast and painless handling of warranties and malfunctions (meaning) one company that takes full system responsibility. We believe in homogeneous coupler systems and one system supplier that takes full system responsibility.

www.oilquick.com



#### A Response from Open S', Anders Jonsson of Rototilt and Stefan Stockhaus of Steelwrist

We would like to make some important clarifications about Open-S and respond to the open letter from Åke Sonerud, OilQuick AB.

The Swedish construction industry faced a big challenge in the 1990s as different manufacturers of quick coupler systems drifted apart more and more and tools and couplers of different makes did not fit together. At that stage an initiative was taken by the Swedish trade association for suppliers of mobile machines to develop the "Symmetrical Standard" (S-Standard), in order to create compatibility between tools, quick couplers and tiltrotators. Today the industry faces basically the same challenge when different fully automatic systems are not compatible and the customer suffers the consequences.

Open-S builds on the established and open S-Standard and is not a company specific or closed partner program. In the latest revision of the S-Standard, in 2011, it is also stated that one of the purposes of the standard is to, "create a design that allows for future installation of fully automated systems for hydraulic couplings and electrical cables." Open-S is thus completely in line with the original ideas behind the original S-Standard.

Open-S has been developed with dealers and machine owners in mind. Customers have different needs and we think it is important that the customer has the option to choose and is not locked into a company specific solution. This is the reason why Open-S is open and we already have other manufacturers who have applied for membership.

As we have agreed on how the products should be connected with each other, the customers can choose freely from the product offering by manufacturers that are in compliance with the standard. It becomes clearer for the customer what fits together and what warranty commitments apply. We continue to take full responsibility for our respective products, but by collaborating we can focus on avoiding problems and find better technical solutions. That also creates more room for new innovations.

Compatibility and safety are of course important questions in the development of Open-S. That is why we ensure that the tiltrotator and work tool fit together with the customer's choice of equipment. Members of the standard must meet a number of technical criteria and tolerances, and also be able to produce products with good quality in large series. The door is open to all manufacturers who are interested and the technical questions can be managed.

This is therefore not a question of technology but about politics. You need to want to cooperate to be able to cooperate. An example of a design change that causes problems is OilQuick's introduction of Front Pin Guides that no longer follow the symmetrical de facto standard, with the only purpose being preventing compatibility.

This is a sign that compatibility is not seen as desirable. Instead of focusing on what makes us different from each other, we prefer a scenario where we keep developing the common standard together, to be able to make the same journey in the future, as for example, Bluetooth or CAN-open, that also started out as collaborations between different companies and that in time have become CEN standards.

We are certain that more manufacturers will join and we also welcome OilQuick to make that journey. This is good for the machine owner and for the whole industry.

# For Hilti, Drilling is a Core Competency

Hilti offers one of the most comprehensive product portfolios for core drilling. In addition to drill motors, stands and a broad core bit program, the company also offers a wide range of accessories including the DD VP-U vacuum pump, the DD WMS 100 water management system and the DD-AF CA autofeed unit for the DD 350-CA and DD 500-CA high-frequency motors.

In the center of the product program stand the compact, multifunctional DD 150-U and the powerful heavy-duty DD 250-CA systems, equipped with Hilti's Cut-Assist technology. The new units feature base material search, electric starting aid, automatic water on/ off and breakthrough detection, plus some valuable new



features aimed at enhancing productivity.

The DD 150-U and DD 250-CA offer now digital displays so that users can do even better and more.

The units also contol the DD AF-CA L and DD AF-CA H autofeed units. The systems recognize the start and completion of every hole displaying actual drilling depth during drilling and collecting total depth in their user statistics.

Hilti also offers all electric devices needed while coring, all of which are connected via Bluetooth® into self-optimizing local equipment networks – with the entire system controlled over the digital displays of the drilling tools. Users can monitor progress while carrying out other tasks and will be instantly notified about any change in the status of their tools while the system is automatically taking measures to avoid downtime for situations such as loss of cooling water or jammed core bits.

A flow of functions and screens escort 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.

www.hilti.com











### site report

### Aloha! Rockster Impactor Contributes to Sustainability of Hawaiian Paradise



Currently, Alakona crushes about 5,000 tons a month with the R700S impactor.

After a long cruise over the Atlantic Ocean, through the Panama Canal, and across the Pacific, Rockster's mobile Impact Crusher R700S reached the island of Oahu in Hawaii. Arist de Wolff and his team of 25 employees of asphalt paving company Alakona Corp. were very excited about the arrival of their brand-new Austrian crushing plant.

Alakona owns several machines they need for their core business like pavers, rollers, loaders, excavators, slurry, and seal coat applicators. When they searched for a crusher to expand their business, they put their focus on compact machinery below 25 tons, which exactly fits their fleet.

"We are so flexible in terms of processing different aggregates and the material we produce with our crusher is of high value," says de Wolff. "We also like the fact that the return belt can be turned aside, and we can make another fraction, as well as the fine side belt that can be pulled off. 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."



Meet family-owned Alakona Corp (from left): Operator Jon Keck; Owners Mervyn de Wolff, Betsy Wilson, Max de Wolff, and Arist de Wolff, along with his wife and daughters.

Thanks to this drive system, 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 as the diesel engine always stays within the optimum speed range.

Using the attached screening system, Alakona crushes asphalt from 24 in to less than 1.5 in (61 cm to 3.8 cm). But that's not all. In Hawaii, coral shells are frequently found the soil. So, when Alakona works on street construction sites close to the ocean, his team usually excavate coral. Without a screening system, they run a 3 in (7.6 cm) final product, used mostly for landscaping.

Although coral is quite a hard rock with high density, "the crushed material contains less fines than the crushed asphalt, which means we can use it as base coarse for house or concrete paths," de Wolff adds.

With a screen box and return belt, the Rockster R700S weighs only 22.8 tons and can be easily transported with Alakona's own flatbed truck without the need of transport permits. This gives them great flexibility in terms of their future plans, to get a foot in the door of contracting business. It also saves them a lot of time and money.

"We are able to crush so many kinds of material," de Wolff says. "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, private owners, and of course municipalities.

De Wolff admits surprise that many island customers are hesitant to research, test, and utilize recycled material.

"It needs to be pushed more and people need to understand that this is the future," he says. There needs to be recycled material especially in construction fields where we could save so much natural resources."

www.rockster.at

### Airport, Seaport Profits Take Off with MB Crusher

Working to demolish, redevelop, and build on seaports and airports has many constraints due to the constant flow of arrivals and departures throughout the day and night. To be competitive, contractors must follow a schedule and avoid going over our budget. That's why many turn to MB Crusher to find a solution that helps them improve operations and increase profit.

When managing remediation work at seaports or airports, operators must deal with large quantities of waste material that needs to be crushed or hauled to a landfill. The costs of transporting and processing the material also weigh on the final budget. To eliminate these expenses for a port remediation project in Dublin, the contractor installed a BF120.4 crusher bucket on their excavator to crush demolition waste. Along with eliminating transportation and disposal costs, the contractor recovered the material for reuse in constructing a new eight-story building. Since the unit was installed on the excavator, MB's crusher bucket arrived on site quickly and without incurring additional costs.

Handling debris requires many trucks going to and from the construction site. At an old Tripoli airport, a company used a BF120.4 crusher bucket to recycle the rubble from the buildings destroyed by a bombing, then reused the material as a substrate for future road construction projects. A similar problem also arose at an airport in Hong Kong where managing time and resources was essential to keep the traffic flowing. Using the BF135.8 crusher during some of the buildings' renovations made it possible to recycle all the material without the need for other machines.





When it comes to renovations at a seaport, factoring in time is essential to avoid slowing down daily operations such as loading/unloading goods and passengers. In Conarky, Guinea, the seaport has invested more than US\$300 million dollars in renovating the container terminal and storage area's deformed flooring. Every year, this seaport records about 2 million tons of goods that arrive and leave their docks.

The project team was tasked to remove the self-locking concrete blocks, reinforce the subsoil, and lay down new concrete--all on time or even ahead of schedule, if possible, to avoid hindering commercial activities. Using MB Crusher's BF80.3 crusher bucket, the contractor crushed the blocks down to an output size between less than 1 in (3cm) and then distributed the materal over the substrate, creating an excellent mixture capable of withstanding heavy loads. All of the work was done by reusing waste material and without trucks transport

When working close to the ocean and having limited space, it is essential to work with precision.

This was the case at an important port in Japan, where a long anti-storm barrier needed to be raised by 3 ft (1m). The contractor needed to mill the concrete exterior to ensure that the new casting would adhere to the old surface, guaranteeing impermeability, stability, and external drainage of water. MB Crusher's drum cutter ground the reinforced concrete layer without damaging the original structure. **D) MATEC** offer a solution for fast, controlled demolition of concrete with their range of hydraulic tools running off a single phase electric power unit. With a modular system providing a selection of concrete splitters, concrete crunchers and rebar cutters – all in single man operation, they are becoming increasingly popular where concrete removal cannot be accessed with larger machines, or in sensitive areas such as hospitals, schools, offices or any occupied building where noise, fumes & vibrations are an issue. This system provides the solution to dustless, noiseless, fume & vibration free concrete removal!

# **DP700**

- Single phase motor
- 700 bar pressure
- Air cooled
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These diagrams show the operational application of the DS400 and DC300.

# DS400

- 425 tonne splitting force
- Only 2" hole required
- Splitting distance of up to 1½"
- Weighs only 50lbs

# DC300

- 12 tonne crunching force
- Crunching capacity 10" concrete
- Weighs only 49lbs





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