

PROFESSIONAL DEMOLITION AMERICA'S

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SHOW ISSUE

Your Gateway to North, Central and South America

Reports

**Smart and Safe
Loading
with Twinca**
pages 32-34

Site Report

**Conjet Automated
Concrete Removal
in Salt Lake City**
pages 20-21

News

**Klindex
Expander 2000,
Almost a
Grinding Robot**
page 30

Site Report

**Mecalac - A
Universal Solution**
page 42

Associations

**Back Together
Again in 2022**
page 6

Business

**Construction Equipment
Economic Outlook:
Stability Is On the
Horizon**
page 6

Reports

**The "Queen" and Her
Concrete Cutting Court**
pages 12-15

Reports

Conjet On the Move
pages 18-20

Shows

**All Roads Lead to Las
Vegas in January**
pages 39-42

Site Reports

Pier-less Power

page 36

Aquajet Offers Ecosilence 3.0 For Quiet Operation and Reduced Fuel Consumption, p 22



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Postal address:
Riverbends Publishing, LLC, PDa Magazine,
P.O. Box 552, Nokesville, VA 20182, USA

Phone: +1 703 392 0150

E-mail Editorial Office:
editorial@pdamericas.com

Web Site:
www.pdamericas.com

ISSN Registration: ISSN 1650-979X

EDITORIAL STAFF

Senior Editor: Jim Parsons
jim.parsons@pdamericas.com

Editor-in-Chief: Jan Hermansson
jan.hermansson@pdamericas.com

Assisting Editor-in-Chief
Anita do Rocio Hermansson
anita.hermansson@pdamericas.com

Editor North America: Jim Parsons
jim.parsons@pdamericas.com

Editor South America: Luiz Carlos Beraldo
luizcarlosberaldo@gmail.com

Junior Editors: André Hermansson
andre@pdworld.com

Vitor Hermansson

vitor@pdworld.com

CORRESPONDENTS

Andrei Bushmarin
andrei.bushmarin@pdworld.com

Mikael Karlsson
mikael.karlsson@pdworld.com

SALES

Sales Director North & America
Andrei Bushmarin
Phone: +7 921 949 27 81
andrei.bushmarin@pdworld.com

Sales Director North America
André Hermansson
Phone: +46 70 979 04 03
andre@pdworld.com

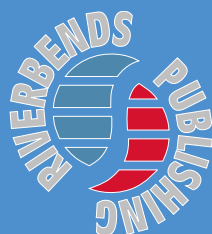
Sales South America
Eduardo Kubrick
Phone: +55 11 999494544
eduardo.kubrick@pdamericas.com

Sales Europe and rest of the world
Phone: +46 8 585 700 46
sales@pdamericas.com

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Jan Hermansson

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Contents



Your Gateway to North, Central and South America

4	<i>Editorial</i> Experience is the Best Teacher; Just Ask Those Who've Failed	10	<i>Business</i> Avant Tecno Announces Changes in Operational Management	36	<i>Site Report</i> Pier-less Power
6	<i>Associations</i> Back Together Again in 2022	11	Industry Looks Forward to Bauma 2022	42	Mecalac - A Universal Solution
6	<i>Business</i> Construction Equipment Economic Outlook: Stability is on the Horizon		Husqvarna Group Invests in Gamma Technologies	22	<i>News</i> Aquajet Offers Ecosilence 3.0 For Quiet Operation and Reduced Fuel Consumption
8	Somers Named AEM Vice President, Construction & Utility Sector		Demarec and Steelwrist Sign Cooperation Agreement for SQ Quick Coupler Systems	26	Next Step for Brokk Connect
	AEM Hall of Fame Inducts Trimble's Bryn Fosburgh		Volvo Construction Equipment Joins Open-S Alliance	27	MB Crusher Presents Three New Sorting Grapple Models
	Winning With the Workforce of the Future: 5 Key Takeaways from the AEM Workforce Solutions Summit	12	<i>Reports</i> The "Queen" and Her Concrete Cutting Court	28	New Sennebogen 728 E Tree Care Handler is Made for the Extreme
9	HazTek Makes Key Staff Additions	18	Conjet on the Move	30	Klindex Expander 2000, Almost a Grinding Robot
	Hiring Our Heroes: Military Vets Could Be the Answer to Construction Staffing Challenges	32	Smart and Safe Loading of Demolition Debris with Twinca	31	Steelwrist Adds SQ90 to Its Range of Fully Automatic Quick Couplers
9	Atlas Copco Zenergi Energy Storage Systems Honored With Innovation Award	16	<i>Site Report</i> Dust Control Inside and Out: Demolition Company Solves Emissions Problem	39	<i>Shows</i> All Roads Lead to Las Vegas in January
		17	Tyrolit Drilling System Goes Underwater	41	Selected Exhibitors at World of Concrete 2022
		20	Conjet Automated Concrete Removal Saves the Day in Salt Lake City		
		24	Eco-Friendly Renovation		

Experience is the Best Teacher; Just Ask Those Who've Failed

"They got a name for the winners in the world
I want a name when I lose..."
--Steely Dan, "Deacon Blues"

Losing. Nobody likes it. Yet along with death and taxes, failure is something that everyone experiences in his or her lifetime. It runs the gamut from coming up short in a video game, to the break-up of a long-term relationship, to the financial and legal ramifications of an unsuccessful business venture.

As even older song advises, we usually pick ourselves up, dust ourselves off, and start all over again. And there is no shortage of adages and other resources to help turn those losses into insightful learning experiences that can sometimes prove more beneficial than if we hadn't lost at all.

Unfortunately, not all losses are as easily resolved as hitting "reset" on a game console, refreshing an online dating profile, or even regaining a clean credit slate. Those whose situations are complicated by factors such as addiction to drugs and alcohol are often trapped in a worsening, self-destructive cycle of loss, one often compounded by the effects on those who care about and rely on them.

Fortunately, there are resources that can help break this vicious circle, enabling addicts literally and figuratively to regain their lives—a "win" in anyone's book, though that hard-won victory may be fragile given the multiple temptations to regress and resume bad habits anytime the going gets rough.

Unless you've experienced addiction—either personally or via a colleague, friend or family member—it's not always easy to understand what leads to such behavior, or what it takes to successfully emerge from

it. That's why we're grateful to have Talisha Bryan share her story in this issue of PDa.

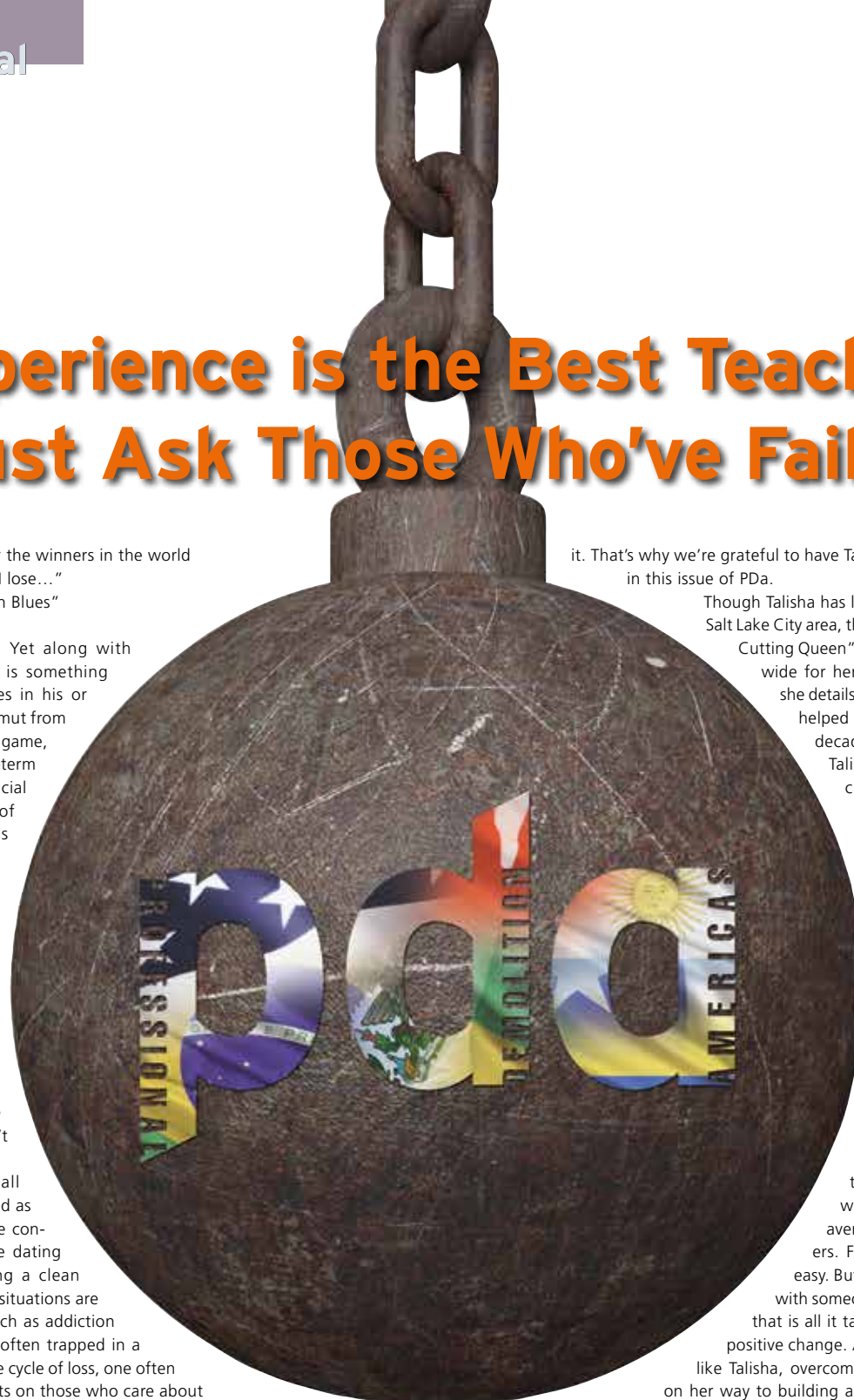
Though Talisha has lived most of her life in the Salt Lake City area, the self-described "Diamond Cutting Queen" has become known worldwide for her YouTube videos in which she details how concrete cutting work helped lift her from more than a decade of addiction struggles.

Talisha is not shy about discussing what she's been through, or how it affected her family, including her two daughters. Indeed, she could've kept her past quiet and made a name for herself simply by being a woman in a male-dominated industry.

Yet openly taking responsibility for past mistakes enhances both the value and urgency of Talisha's message. As we've reported before, the rate of addiction among construction workers is nearly double the average for all full-time workers. Finding a way out is never easy. But sometimes, simply talking with someone who's been there, done that is all it takes to start the process of positive change. And when that person has, like Talisha, overcome other types of obstacles on her way to building a career, it truly shows that anything is possible, including winning one's personal battle with addiction.

So yes, they've got a name for the winners in the world. In this case, it's Talisha. But it's also the name of anyone willing to that that proverbial first step on a journey that's not always easy, but always worth the effort.

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

Back Together Again in 2022

We had a fantastic fall at the NDA. We held our Fall Leadership Forum and our Foundations of Demolition Risk Management Course in conjunction with the World Demolition Summit. Congratulations to those who completed their certificate in the Foundations of Demolition training series. In addition, we held the Foundations of Demolition Estimating Course in Washington DC at the end of November. We had 32 attendees. We hope you consider registering yourself, colleague, or employee in the one of the upcoming courses in 2022.

In committee news, the Convention Committee has planned a fantastic event in San Diego. After what will be two years apart, we hope you will take advantage of the chance to reconnect with your industry colleagues in person and register.

There is more in the committee front, including the Safety Committee new safety talks, starting out right and coming soon a revised engineering survey. The Industry Committee completed the Power Plant and Implosion Guidance documents. Both of these documents will be available on our OSHA Alliance page on the website.

NDA's dynamic membership directory is now available for download. The directory allows members to download primary contacts for member organizations and is an excellent resource for members seeking products and services from trusted partners. The directory is updated nightly and you must be a member to access.

NDA has been tracking the OSHA COVID-19 Vaccination Mandate. While OSHA has temporarily suspended enforcement of the ETS, NDA has been encouraging members to continue to execute their strategy for implementation and to plan on meeting deadlines. NDA has created a members-only guide, which provides an in-depth summary of the guidance issued by OSHA on the ETS. NDA will also be submitting formal comments to OSHA on the ETS, which are due by Jan. 19, 2022.

Congress is continuing work on the budget reconciliation bill called the Build Back Better Act. This bill, which is under consideration in the Senate after passing the House of Representatives, is a \$1.7 trillion comprehensive package. Recently, NDA outlined concerns with specific provisions in the House bill and provided recommendations on how to improve the bill in the Senate. These recommendations include:

- Oppose all tax increases on the demolition industry;
- Oppose unreasonable increases to OSHA fines;
- Oppose expansion of the Family Medical Leave Act (FMLA).

The Senate will vote on the Build Back Better Act in the New Year.

Our next episode on Demolition Now podcast is available on our website. In this episode, we hear from Dustin Bass – Co-founder and Partner, BaseRock Partners on COVID relief, the Federal Reserve, the stock market and infrastructure in addition to a discussion on their quarterly market outlook on engineering and construction. A copy of which can be found on the website. Next, we talk with Loren Smith, Skyline Policy, on the supply chain, COVID aftershocks and how regulation and permitting play into infrastructure rollout. There is nothing more valuable than a peer-to-peer connection in growing the association. With all that has been going on with the industry and at NDA, if you know someone who is not a member of our community—invite them to join. Membership provides access to safety resources, demolition best practices, educational content, a company listing in our public Membership Directory and so much more. Have them contact me directly at jlambert@demolitionassociation.com or apply for membership online at demolitionassociation.com/Membership/Join-or-Renew.

Jeff Lambert
Executive Director

www.demolitionassociation.org

Construction Equipment Economic Outlook: Stability is on the Horizon

While federal stimulus measures have already played a pivotal role in helping the U.S. economy recover from the pandemic, research provided by the American Equipment Manufacturers indicates that additional proposals such as the American Jobs Plan (AJP) offer a lot of potential for the construction industry in particular.

With respect to the public health situation, how the next several months play out will also impact the next couple of years. Oxford Economics' baseline forecast calls for 7.3% GDP growth in 2022. If vaccines show limited effectiveness against COVID-19 variants, growth may be just under 3%. If inflation persists, growth might be just under 6%. If all stars align and a "consumer boom" ensues, growth could jump to nearly 10%.

Focusing on just the manufacturing and construction sectors of the economy, model simulations indicate that the AJP could help raise output by 3.5% by the end of 2023. Federal spending would take the most dramatic upward turn. Annual percentage increases from 2022 through 2025 are anticipated to be 29.4%, 26%, 12.5% and 2.5%, respectively. That's a total increase of 70% over a four-year period. Contrast that with the period of 2015-2019, when federal spending increased just 4.8%. State and local infrastructure spending would also get a big lift from the AJP. Growth of 33% is expected over the next four years. Funding from the private sector is expected to grow 37%.

Should the AJP make it through Congress, the prognosis for infrastructure spending looks good from every direction. However, the outlook is mixed for construction spending related to business and commerce. Some sectors have benefited from increased government funding, including health care and education. Others, such as office buildings, have not fared well. Some sectors, including warehouses and transportation facilities, have benefited from private funding. Total PIP (put in place) construction for business and commerce was flat this year. Growth of 2.9% is expected next year, followed by 7.5%, 5.4%, and 3.5% from 2023-2025.

The housing market has been building up growth over the past couple of years. In 2020, private residential spending was largely driven by new single-family homes and existing home improvements. Looking forward through 2026, the most growth will come from single-family home construction.

Accelerating new home construction has become urgent, as housing affordability has become a major issue. Unfortunately, supply hasn't been able to keep up with demand. Material and labor shortages have caused a sharp increase in homebuilder backlogs not seen since 2006.

U.S. home pricing isn't the only thing on the rise. Orders for construction machinery continued to climb through the first half of this year.

According to results from AEM's second-quarter member survey, roughly 71% of equipment manufacturers reported an increase in demand from the first quarter. Last year at this time, 85% felt demand had grown quarter-to-quarter, and just 10% said demand for the year was stable. Furthermore, 85% of AEM members predict growth over the next 12 months with only 1% anticipating a decline.

With demand continuing to cruise along, more AEM members are now indicating inventory levels that are too low. Most have been able to increase production to some degree. But new orders are also increasing, leading to an increase in backlog.

The result, says Benjamin Duyck, AEM director of market intelligence, is that while the construction equipment industry continues to be in a boom cycle, more stability is also taking shape.

"Close to 95% of AEM members are experiencing supply chain issues," Duyck says. "For more than half, those issues are getting worse and are both domestic and global. Component manufacturers and OEMs feel that the main issue does not necessarily lie at the end-point or receiving shipping. Rather, the main issue is at the supplier source and especially international shipping."

www.aem.org

Mariusz Stabryla new Production Manager at Conjet

Mariusz Stabryla has joined Conjet AB as Production Manager, responsible for managing and strengthening assembly and warehouse at the company's Sweden headquarters. Stabryla comes to Conjet from Scanreco AB, where he managed a team of 30 employees. He has been a key player in Scanreco's transformation from a small company to an industrial organization with a global presence and brings very valuable knowledge and experience to Conjet. Mariusz also has experience of working with production technology, purchasing and planning.

"We are extremely happy to welcome

Mariusz to Team Conjet," says Ola Wagner, COO. "We are in a critical phase in our focus on operational excellence and Mariusz experience and skills are critical in helping us to develop our operations processes and continue improving the service to our customers."

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Event Calendar

World of Concrete 2022

January 18-20, 2022
Las Vegas Convention Center,
Las Vegas, Nevada

www.worldofconcrete.com

Hillhead 2022

June 21-23, 2022
Hillhead Quarry
United Kingdom

www.hillhead.com

ISRI 2022

March 21-24, 2022
Mandalay Bay, Las Vegas,
USA

www.isri2022.com

Concrete Show, Brazil

August 9-11, 2022
Sao Paulo Exhibition Center,
Sao Paulo, Brazil

www.concreteshow.com.br

BAUMA 2022

October 24-30, 2022
Munich Exhibition Center,
Munich, Germany

www.bauma.de

DEMCON 2022

November 24-25, 2022
InfraCity, Bredden,
Stockholm, Sweden

www.demcon.se

BAUMA China 2022

November 22-25, 2022
Shanghai Exhibition Center,
Shanghai, China

www.bauma-china.com

CONEXPO-CON/AGG

March 14-18, 2023
Las Vegas Exhibition Center
Las Vegas, USA

www.conexpoconagg.com

Samoter 2023

March, 2023
Verona Exhibition Center,
Verona, Italy

www.samoter.it

Intermat 2024

April, 2024
Villepinte, Paris Nord,
France

www.intermat.fr



Somers Named AEM Vice President, Construction & Utility Sector

The Association of Equipment Manufacturers (AEM) announced it has named John Somers as its vice president, Construction & Utility Sector. Somers replaces Megan Tanel, who will succeed Dennis Slater as AEM President effective January 1, 2022. Somers will be responsible for the strategic direction of construction and utility programs and services for AEM membership, and he will serve as the primary liaison to AEM's CE Sector Board and with CE-specific industry organizations, customer groups and government agencies, both in North America and worldwide.

Somers joined AEM in 2007 and has held various positions with increasing responsibility within the organization over the past 14 years. He serves on the Next Practices Advisory Committee with the Common Ground Alliance (CGA) to encourage innovation and new practices to address the most critical challenges facing the damage prevention industry.

Somers also helped lead the development of the industry's telematics standard and currently manages AEM's Engine Emissions Strategy Task Force which is addressing potential regulation impacts on manufacturers and end users. He is an alumnus of Carroll University where he earned a Bachelor's degree in computer science.

www.aem.org

AEM Hall of Fame Inducts Trimble's Bryn Fosburgh

The Association of Equipment Manufacturers (AEM) inducted Bryn Fosburgh, senior vice president of Trimble, into its Hall of Fame for a broad range of contributions in developing and advancing technologies that support the construction and agriculture industries worldwide. The award was presented to Fosburgh at AEM's Annual Conference in Phoenix on November 12. Fosburgh's many contributions include leading the creation of the SITECH network, the first fully dedicated

global construction technology distribution network to sell, install and support 3D machine control systems for mixed equipment fleets. He spearheaded Trimble's first joint development project with Caterpillar called CAES, a 3D grade control system for ore mining machines.

Fosburgh was also part of a team that pioneered the development and validation of high-accuracy, low-latency GPS systems, including real-time kinematic (RTK) technology, for mining and construction machine control. RTK is an innovative technique used to significantly improve the accuracy of a GPS receiver for many precision applications including surveying and heavy equipment operations in construction and agriculture. In addition, Fosburgh served as a member of the U.S. Army Corps of Engineers RTK Team, working with Ben Remondi, a GPS RTK pioneer. He began his work in GPS technology and theory as a graduate student in civil engineering at Purdue University.

More than 65 industry leaders have been inducted into the AEM Hall of Fame since its inception in 1993.

www.aem.org/hallofFame



Winning With the Workforce of the Future: 5 Key Takeaways from the AEM Workforce Solutions Summit

As equipment manufacturers prepare for the workforce of the future, they need to be armed with smart change management and talent management strategies. Presenters at the second annual AEM Workforce Solutions Virtual Summit offered several ideas. Here are some key takeaways:

Adopt Forward-Looking Employment Strategies to Meet the Changing Nature of Work

Bryan Hancock, global leader of McKinsey & Co.'s global management practice, said that companies are adopting automation and digitization much more quickly, largely driven by the COVID-19 pandemic. Sixty-eight percent of companies McKinsey surveyed said they had increased their use of automation since the start of the pandemic.

Introduction of automation can be met

with a chilly reception by employees, who believe it can lead to job losses. However, automation is largely replacing workers for competitive tasks, freeing workers for those tasks that require cognitive skills. Although about five million current manufacturing jobs will be lost between now and 2030, the firm believes about 4.7 million new jobs will be developed due to industry growth.

Hancock urged conference attendees to identify the skills that they need more of in their organizations, then to determine the training investments needed as well as looking for more creative and diverse ways of finding employees with the desired skills.

"Today's employees also want flexibility in how often they come into the workplace, going in only when necessary for training, team collaboration or hands-on work that can't be done remotely," Hancock said.

Leaders Don't Shy Away From Conflict

"The most effective, most highly admired leaders in an organization are those who deal with conflict early and head on," said Janyne Peek-Emsick, president of Your Executive Coach. "According to a Stanford Business School study, conflict is the number one reason CEOs seek out executive coaches, and it's why boards seek out coaches for their CEO."

Conflict can result in employees wasting as much as three hours of each work week, so stopping conflict early makes for much more productive organizations, Peek-Emsick said. She added that conflict at the relationship level is a symptom of a misalignment in goal clarity or role clarity, which results in people stepping on one another's toes.

A Culture of Diversity and Inclusion Strengthens Companies

"We truly believe in the transformative nature and power of diversity and inclusion," said Lauren Gardner, Microsoft's vice president for talent acquisition. "It's only by actively engaging the different perspectives can we challenge and stretch our thinking and reduce the experience of our employees and we'll talk at a quick moment about our own mission, which is empowering every person and every organization on the planet to achieve more."

Organizations that don't follow diversity and inclusion practices can lose many of their valued employees, Gardner cautioned. Seventy percent of millennial employees now as well as Gen Zs would leave an organization for a more inclusive one.

"There are billions of people who want to achieve more, but they have a different set of circumstances, abilities, skills and experiences that can often lock them out of participating in the world that is happening around them," Gardner added.

The diversity effort doesn't stop at the hiring stage. All of Microsoft's divisions seek

to bring on people with diverse backgrounds but won't matter if they don't feel value for the work that for the experiences they bring or aren't respected for who they are, or don't experience opportunities for further growth and development.

Leverage Local Workforce Alliances

With their connections to businesses, local elected officials, labor, economic development agencies, educators and community leaders, local workforce alliances foster high growth career opportunities for workers, and help to meet the needs of businesses seeking qualified workers to meet their present and future needs, said Keith Lawing, president and CEO of the Workforce Alliance of South Central Kansas. Through such agencies, workers acquire skills for employment opportunities to meet a region's workforce talent and employer skill needs, Lawing said.

Funding priorities for these agencies, which have been supported by Democratic and Republican administrations alike, are based on a broad range of worker issues that consider wages, job mobility, access, and equity by analyzing data and working with local businesses workforce to understand what skills are most in demand. Then each local agency develops the necessary training and credential programs, using outcome data to advise employers, policymakers and communities about what approaches are successful, Lawing added.

Get Strategic About Employee Sourcing

The current labor shortage will continue for at least the next seven years as more than 10,000 Baby Boomers retire each day, leaving employers searching for workers with the necessary skills to meet their employment needs.

According to Chris Czarnik, CEO of Career Research Group, organizations should consider the following ways to source great employees. Hed advised it's important to understand why job seekers contacted your company. It could be they've acquired new skills or now have the experience to seek out your company, or a host of other factors. If you like what they have to offer, ask about their previous job. This can help you identify ways to recruit similar candidates, but also the types of companies that provide the skills sought.

Interview the best employees hired over the last 18 months to learn why they sought your company out as an employer, the preconceived notions they had about the company, what they think it takes to be successful with your firm, and why they choose to stay with the organization.

Today's the Day to Start Shaping the Workforce of Tomorrow

The skillset and the mindset of tomorrow's employee base is radically different than that of today. The efforts needed to build your future workforce must start now.

HazTek Makes Key Staff Additions

Safety management solutions provider HazTek, Inc., has announced that Kathleen Taylor has joined the firm as Regional Account Manager for the Mid-Atlantic region, while Pete McEvoy is the company's newest Solutions Consultant.

Taylor brings more than 30 years of sales experience in the Baltimore area, and has a proven track record of developing and maintaining a strong client base. Since joining the firm, she has been getting up to speed with clients in metro Baltimore/Washington, DC, learning about their safety concerns and tailoring solutions that best fit their safety needs. Taylor works closely with the Operations team to help clients develop strong, company-wide safety cultures, while ensuring customer satisfaction during all phases of work. She will also focus on developing relationships between HazTek and local trade organizations.

Prior to joining the HazTek team, Taylor was a Healthcare Account Executive for Corbett Technology Solutions Inc., where she worked with various contractors. She has also worked for several different radio and television stations in the Baltimore market where she sold commercial time, created and implemented promotional opportunities for her clients, and helped create new programs. In addition, Taylor is experienced in all aspects of running a business, and was the Owner/Manager of a title company.

McEvoy been involved with construction and facility maintenance for nearly 20 years as a business owner, safety professional, and solutions consultant. His primary expertise is in Fall Protection with proficiency in consulting, designing, quoting, and overseeing safety projects such as Freestanding Guardrail Systems, Horizontal Lifelines, Anchor Points, Window Washing Anchors, Davit Systems, Confined Space Rescue solutions, and Access Systems (ladders, platforms, ramps, stairs, and cross-overs). He can also recommend, plan, or oversee engineering and installation services on our clients' behalf.

McEvoy will be visiting client locations to conduct field surveys that include detailed



measurements of buildings, roof surfaces, and structures. He will also oversee anchor point inspection, testing, and certification services, and conduct Fall Hazard Assessments and Project Management.

www.haztekinc.com

Hiring Our Heroes: Military Vets Could Be the Answer to Construction Staffing Challenges

As construction companies struggle with finding skilled labor, military veterans are a segment of the labor force that deserves attention. Vets currently make up about 7% of the U.S. construction workforce and each year approximately 200,000 vets transition out of the military. Those construction firms that have been successful in recruiting and retaining veterans say their hard and soft skills as well as attitudinal characteristics make them great new hires. Here are some reasons why:

Veterans are highly trustworthy. "They know how to take orders and show up for work in the morning," says Bob Nilsson, a retired veteran and former president of Turner International, which has a long history of hiring vets.

Veterans know the importance of discipline and teamwork. "Because of their military training and experience, veterans tend to have a strong sense of discipline, focus, team-orientation, and leadership" says Erica Gilliland, director of Craft Recruiting for McCarthy Building Companies. "We know that we can teach technical skills, but it's more complicated to teach those types of soft skills that are so important on our project teams."

Veterans are adept at skill transfer. Military personnel are often trained in one area and moved to another. They have to quickly embrace change, train, learn and adapt. At the same time, they learn how to leverage their existing training, skills and knowledge in new roles.

Veterans are comfortable in discontinuous environments. "A military member could be sitting in an office one day, and the next day they could be deployed to a disaster area or war zone," says Julie Davis, AEM Director of Workforce Development. A willingness to travel translates well to the construction

industry where employees move from project to project as needed.

Veterans have advanced technical training – "The military is always on the leading edge of technology," says Davis. "Military veterans have been conditioned to be very technology-minded, always thinking about how innovation could advance their mission."

Easing the transition

For many veterans, moving from the very structured environment of the military to an unstructured civilian work environment can be difficult.

"Veterans are scared to death about the civilian world," says Nilsson. "What we found at Turner was that we had to not only pay attention to hiring vets, but to keeping them employed." She adds that a mentoring program pairing new hires with employees with a military background proved highly successful in improving retention.

For smaller construction firms that may not have formal training programs Gilliland recommends working with organizations that provide construction trades training for service members while they are still in the service, including Home Builders Institute (HBI). For veterans who have completed their service, there are groups like Adaptive Construction Solutions, The Warrior Alliance, and Helmets to Hardhats.

Atlas Copco Zenergize Energy Storage Systems Honored With Innovation Award

Atlas Copco's groundbreaking Zenergize Energy Storage Systems received the third prize of the Matexpo Innovation Award, presented as part of the Matexpo exhibition in Kortrijk, Belgium. Zenergize is a new range of lithium-ion energy storage systems that can be used as a standalone solution or combined with generators to create a hybrid power solution. Zenergize energy storage system delivers zero CO2 emissions, zero NOx pollution, and zero noise, with virtually zero maintenance needs. This enables operators to minimize environmental impact while benefiting from low-cost ownership.

Designed with sustainability in mind, the energy storage systems enable users to minimize the environmental impact of their operation by significantly reducing fuel consumption and emissions.

www.atlascopco.com/zenergize



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Avant Tecno Announces Changes in Operational Management



From the right: Risto Käkälä and Jani Käkälä.

Avant Tecno marked its 30th anniversary on a bittersweet note, with Risto Käkälä stepping down as the company's CEO. He will continue as Chairman of the Board for Avant Tecno and its Leguan Lifts subsidiary, posts he has held since the two companies were founded.

"The company is now in excellent condition and growing strong," Käkälä says. "During the last 30 years, our sales have fallen only once compared to the previous fiscal year, and not once we have made a loss. All in all, we could say that it's easy to continue from this."

Käkälä adds that Avant Tecno's next generation will bring new ideas to sustain the company's growth. "However, it needs to be remembered that it's about the state of mind when it comes to success—the urge to be the best," he says. "This has supported our operations until now and for sure we will continue on the same path also in the future."

Jani Käkälä, who has been the Sales and Marketing Director of the company for the last 11 years, has been nominated as the new CEO. Jani Käkälä has been involved in the company's operations practically since he was a child.

"Continuing the family business has been self-evident for me for a long time," he

says. "At the moment we have a clear growth strategy and we have already done a lot to secure our excellent competitiveness. The future steps are clear and our operation will be continued with decisiveness", Käkälä tells.

Jukka Kytömäki has been nominated to take Jani Käkälä's place as Sales and Marketing. He has been with the company for the last 10 years, previously serving as the President of Avant Tecno USA. Kytömäki knows the operating environment and the products of Avant very well and transfers to his new position with enthusiasm. Leguan Lifts' Managing Director Antti Otava has retired as well, the company with strong international growth to his successor Esa Vuorela. Vuorela has a long experience from different development and management positions in industrial companies.

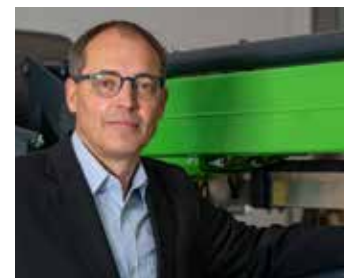
www.avanttecno.com



Jukka Kytömäki the new Sales and Marketing Manager.



Jani Käkälä appointed new CEO.



Esa Vuorela hired as new Managing Director for Leguan Lifts.



Industry Looks Forward to Bauma 2022

TrendSet, the pilot trade fair for Messe München under coronavirus conditions was held successfully in July, while IAA Mobility took place in September with an elaborate safety and hygiene concept. The measures were well received, showing that it's possible to hold trade fairs again in these challenging times. Three exhibitors aiming to attend Bauma (October 24-30 2022, in Munich), reported positive feedback from their experiences as the two post-COVID shows.

"After seeing the new trade fair conditions after coronavirus for myself in person on site during IAA, the hope and anticipation of having an almost normal Bauma 2022 are growing even more," observed Anke Hadwiger, from Zeppelin Baumaschinen GmbH. "The trade fair developed and implemented new and forward-looking concept ideas. We're now preparing ourselves for the industry gathering with interesting inspiration, impressions and a positive mood."

Added Joachim Strobel, managing director of Liebherr-EMtec GmbH, "The pandemic showed us lots of potential for alternative communication and collaboration, but at the same time also confirmed the huge importance of personal contact and dialogue

with the customer, partners and business associates."

Komatsu's Marco Maschke emphasized the importance of Bauma 2022, noting that it remains the leading trade fair for the worldwide construction industry. "Our customers and sales partners tell us time and again just how important direct contact with the manufacturer is in our industry – at the proper distance, of course," Maschke said. "In that respect, the hygiene concept shown at IAA Mobility convinced me that Bauma will be a very safe and, as always, very successful event."

As an international industry gathering, Bauma offers a comprehensive overview of market leaders and innovations. In 2022, the focus will again be on a wide variety of future themes in the construction, building materials, and mining machinery industries through live presentations, rounds of discussions and lectures. Trend topics include The Road to Zero Emissions; Digital Construction Site; Construction Methods and Materials of Tomorrow; The Road to Autonomous Machines; and Mining: Sustainable, Efficient, and Reliable.

www.bauma.de

Husqvarna Group Invests in Gamma Technologies

Husqvarna Group's venture capital arm has taken an equity stake in Gamma Technologies, marking the fifth investment for the Group's venture capital fund to collaborate and help grow start-ups in areas of digital disruption that affect related industries.

"Gamma is innovating in an area of high interest to us as we believe Augmented Reality is an important technology when delivering new technology-based services to our customers going forward," says Mark Johnson, vice president of Corporate Venture Capital, Husqvarna Group. "We look forward to a close collaboration with the Gamma

team and to capture learnings to accelerate the evolution of our Construction business.

Caner Dolas, CEO & co-founder, Gamma Technologies, says that Husqvarna's investment "will accelerate the revolution of the construction industry and spread awareness about the benefits of using AR technologies on the jobsite. Husqvarna Group, with our current shareholders Forinitas, are strategic investors and partners which will help us define the future of construction."



Demarec and Steelwrist Sign Cooperation Agreement for SQ Quick Coupler Systems

Demarec and Steelwrist have announced a cooperation agreement that will see Steelwrist SQ fully automatic work tool adaptors and quick couplers incorporated into Demarec products. The global demand for fully automatic coupler systems for excavators continues to grow in the demolition and construction industry. Steelwrist SQ couplers are appreciated by customers for the increased safety and ability to change hydraulic powered work tools in seconds without leaving the cab. The range includes SQ60, SQ65, SQ70, SQ70/55, SQ80, and the recently introduced SQ90, the biggest model so far. Steelwrist SQ products follow the Open-S industry standard for fully automatic couplers for excavators.

Demarec is one of the top manufacturers of hydraulic attachments for the demolition and recycling industry. With more than 25 years of experience in the sector, Demarec has been successful in answering market demand with innovative technology and expertise.

"We at Demarec know the advantages of the fully automatic couplers in combination with our demolition and recycling equipment like no other," says Marcel Vening, Managing Director Marketing and Sales at Demarec. He adds that in the past years, supply and demand in the market of automatic quick coupler systems has undergone a significant change.

"Nowadays, more suppliers of such systems are active on the market to meet the continuously growing demand for fully automatic systems," he says. "As a specialist in full hydraulic couplers we have also started this cooperation with Steelwrist."

Steelwrist CEO Stefan Stockhaus adds that owners and operators are starting to adopt to the fully automatic coupler technology.

"In the demolition industry it is moving toward a must in many countries," Stockhaus says. "With the Steelwrist SQ and Qplus technology we can support the Demarec organization directly from factory. Demarec with their focus on quality products and support is a good example of an equipment manufacturer that we are very happy to work with."



Volvo Construction Equipment Joins Open-S Alliance

As the demand for fully automatic quick couplers on excavators continues to grow rapidly in demolition as well as in general construction the Open-S Alliance organization now welcomes Volvo Construction Equipment (Volvo CE), a leading manufacturer dedicated to excavator performance, as a member of the organization.

The Open-S Alliance is a manufacturer-independent organization working to safeguard global interchangeability of hydraulic powered work tools and attachments for excavators. Since early 2021 Volvo CE has delivered quick couplers and adaptors directly from the factory. As a supporting member of the Alliance Volvo CE hopes bid to make customers' day-to-day work even more productive.

"We are very happy that Volvo Construction Equipment also formally joins the alliance as a technology leading OEM," says Stefan Stockhaus, Chairman of the Open-S Alliance. "We also see that the interest is growing from other excavator brands. I am firmly convinced that open and standardized interfaces will give end customers major advantages. It makes it easier to use many different work-tool-brands without being locked into a proprietary solution owned by one manufacturer."

The Alliance's standardization work, ongoing for the last two years, aims to:

- Increase safety and efficiency for excavator owners, operators and ground personnel thanks to that interchangeability for hydraulic powered work tools is achieved.
- Create a competitive and open industry standard that is not controlled by a single producer.
- Create a standard that is user-friendly and follows the highest safety standards.
- Create a uniform manufacturing standard for dimensions and tolerances.
- Make it cost efficient to retrofit adaptor brackets to used and new buckets and work tools.

www.opens.org



The "Queen" Concrete Cu

In the male-dominated world of construction, Talisha Bryan of Utah stands out not just because of her gender and concrete cutting skills, but also for having traveled a long and difficult road back from the depths of addiction.



The Concrete Cutting Queen Talisha Bryan embraces opportunities to share her own difficult story of recovery and survival in the hope that others may find the inspiration needed to face up to their own inner demons.

There's no need to bow to royalty when meeting Talisha Bryan, the self-described "Diamond Cutting Queen" whose popular YouTube videos show her deftly wrangling concrete saws and drills at projects around greater Salt Lake City. Talisha's easygoing manner and ready smile evidences her genuine enthusiasm for the physically demanding work, particularly as she tackles tasks that wear out even the most seasoned of her male colleagues.

That's because concrete cutting is more than just a job to Talisha. It has also provided the foundation for rebuilding a life that once mired in a seemingly endless, downward spiral of drug addiction. And being part of an industry where the rate of substance abuse is nearly twice the national average, Talisha embraces opportunities to share her own difficult story of recovery and survival in the hope that others may find the inspiration needed to face up to their own inner demons.



" and Her Cutting Court

"Nothing good in life is easy," Talisha says of her struggles, "but if I can overcome them, anyone can."

A worsening cycle of addiction

Talisha's addiction issues began during her teenage years in the Salt Lake City area. Describing herself "a troublemaker," she regularly stayed out late drinking and smoking marijuana with friends. Repeated attempts by Talisha's parents and others to change her behavior often did more to reinforce it. Short-lived stints of being clean repeatedly give way to the temptations of other, more harmful drugs—heroin, cocaine, and methamphetamines.

By her early 20s, Talisha had been married and divorced, and was mother to two daughters—Lilly, who was born with genetic heart condition and has had multiple open-heart surgeries, and Bree. Bree's father overdosed on heroin and passed away when she was only five. Although Talisha had done her best to stay clean for her young daughters' sake, the pressures of being a single mother while holding two jobs began to mount, and with it, the lure of escape through drugs. Even being seriously injured in a car crash didn't deter her from a path she knew full well would lead to a bad end.

"I just kept repeating same mistakes because I was still the same person," Talisha says of her eventual return to shooting heroin and methamphetamines. "To get clean and stay clean, you need a new personality."

That turning point came on July 23, 2018—a date Talisha will never forget—as her drug use and dealing activities landed her a six-month sentence in the Davis County jail.

"I had hit rock bottom," she says, "but the truth is, losing everything and going to jail saved my life. I finally understood everything that I had put my family through and all the ways I had failed my kids. After all the other times where I thought I was ready to change, this time I knew I really had to do something different."

"Are you sure you want to do this?"

During her incarceration, Talisha made friends with another woman inmate who had worked for Greene's Concrete Cutting, a Salt Lake City-area concrete contractor. Up to that time, Talisha's construction experience amounted to little more than a week spent installing fences. Still, she was intrigued enough to apply for a job there after her release.

"I had loved the fencing work—being active and literally working my butt off," she says.

So what if concrete cutting would push Talisha to the lim-

"To get clean and stay clean, you need a new personality."



Talisha were from the start never afraid to work her butt off and she can tackle tasks that wear out even the most seasoned of her male colleagues.

its of her strength and stamina. "When I applied at Greene's, they looked at me like, 'are you sure you want to do this?'" Talisha recalls with a laugh. "And I said, 'yep, I do!'"

Initially assigned to Greene's highway division, Talisha learned the ropes of concrete cutting with an E-Z Drill two-gang rock drill. It wasn't long before she had become an expert operator. "From then on, it was 'my drill,'" she says proudly. "I wouldn't let anyone else touch it."

Talisha's re-entry to the working world was hardly smooth sailing, as she faced hour-long commutes to and from work as well as required attendance at recovery treatment sessions and, of course, taking care of her daughters. But as Talisha's comfort and confidence with concrete cutting work grew, so too did her enjoyment of everything it entailed.

"I found that I liked getting up early, and working hard for long hours," she says. "I literally get paid to work out. It gave me motivation to stay clean and keep healthy—to get a full-night's sleep, eat healthy, and do everything else I need to do. Otherwise, I wouldn't be able to do my job."

After about three months, Talisha started working as a helper for Greene's core drill and wall saw operators. The more she watched and picked up the nuances of the operations, the more Talisha relished the idea that she could be trusted to work alone with her own truck and equipment. And after



Talisha is today one of the administrators for the Concrete Cutting Nutters Association's Facebook page.





"As a concrete cutter I literally get paid to work out. It gave me motivation to stay clean and keep healthy—to get a full-night's sleep, eat healthy, and do everything else I need to do. Otherwise, I wouldn't be able to do my job."

a few weeks, her dream came true.

"They threw me into a truck with a flat saw and a core drill, and let me loose," Talisha says. She used her newfound independence to lose herself in her work while also listening to podcasts, audio books, and other sources of information to help better herself.

Talisha didn't mind being assigned complicated jobs, as they provided a new opportunity to exceed client's expectations, resulting in frequent compliments about her work.

"I had a lot of contractors specifically request me because I was one of people who kept everything clean, and did exactly what they wanted," she adds.

Talisha has shared many of her work experiences via YouTube, including drilling 800 holes for rebar as part of the renovation of the 130-year-old Davis County Courthouse, located just blocks where she spent her life-changing jail time. It was also there that Talisha set a personal one-day record of drilling 117 holes, while also encountered some eerie occurrences that convinced her the old building is haunted.

Asked for other memorable projects, Talisha lists drilling holes for railing at Lilly's high school in Ogden, and cutting many of the slabs for Amazon's new one-million-sq-ft distribution center in West Jordan.

Lifting herself to help lift others

Though Talisha can't avoid standing out as a woman in "a man's world," in her mind, she's a concrete cutter. Period. And it seemed only natural that her love of the work would result in her selection to become one of the administrators for the Concrete Cutting Nutters Association's Facebook page.

"I finally felt like I was part of something," she says. And having gotten so much from the job, she was determined to give something back. That's why at every new jobsite, she



hands out a business card with her YouTube information on one side, and "Homeless Heroin Addict Becomes a Successful Concrete Cutter" on the other. The card sparks a lot of conversations, with Talisha always ready and willing to provide a friendly ear to anyone who wants to share their own struggles with addiction.

"I've had a lot of people tell me I've helped them, and that I'm inspiring," says Talisha, who someday would like to start a non-profit focused on addiction recovery and support. "I've talked to family members of addicts and tried to give them advice, particularly when addiction impacts their kids."

If they can see where I was at and how bad I was, and the place that I was able to come back to be where I am today, it'll give them hope that they can do the same."

Today, Talisha has much to be proud of. Financially stable with a house and new car, she shares her life with her boyfriend Christian Jackson. She has also moved on to a new job, managing telecom projects for B. Jackson Construction of West Jordan.

"They have concrete cutting equipment so I handle those jobs when it's needed," Talisha says. "I want to keep cutting on the side and hopefully start my own business someday."

There are still challenges, of course, including constant

vigilance against anything that might cause her recovery to backslide even just a little bit. Addiction, after all, is a disease that can be only successfully treated, not cured.

Yet at no time in her life has Talisha felt more confident about tackling whatever life may have in store for her and her family.

"I knew it was going to be hard," she says of her recovery, "but it gets easier every day. I won't let myself quit."



You can find Talisha under "Diamond Cutting Queen" on Youtube, Tiktok, Instagram and Facebook



If you want to learn more about Talisha, her work as a concrete cutter and how she is helping other people coming out of their addiction, subscribe to her YouTube channel by using this QR code.



Talisha (center) and her lovely family, from the left: daughter Bree, boyfriend Christian Jackson, and daughter Lilly.

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Dust Control Inside and Out: Demolition Company Solves Emissions Problem

By Mike Lewis, Vice President, BossTek

Demolition experts know that every site has its unique challenges with dust. This is particularly true when stripping potentially hazardous materials from indoor projects and separating materials for recycling. Both indoor and outdoor work can create vast amounts of dust that could violate emissions regulations established by the US Occupational Safety and Health Administration and the Environmental Protection Agency.

With air quality standards getting tighter and more sites located adjacent to residential areas or active commercial zones, contractors are showing a preference for demolition companies that forgo the common handheld hose dust suppression method for more modern and effective measures. That's the case for East Coast Demolition, a full-service hazardous material abatement and demolition contractor serving northeastern North Carolina and Virginia.

The firm was contracted to demolish, recycle, clear and prep the old site of The Village Shops at Kingsmill in Williamsburg, Va. Due to its proximity to residential communities and local businesses, the general contractor selected East Coast Demolition for its experience in the proper handling of hazardous materials and dust suppression methods.

"We take environmental hazards very seriously because we want to be good stewards of the communities we serve," says Ricky Webb, COO of East Coast Demolition.

The project involves demolishing seven brick and cinderblock structures totaling approximately 81,000 ft² (7,500 m²) and more than 4 acres (1.6 hectares) of asphalt flattop in 10-12 weeks. One of the challenges was removal of the roofing and floor tile, which both contain asbestos. The task of soft-stripping these elements is often done by hand to avoid producing excessive dust.

To mitigate potential worker exposure to asbestos fibers while meeting the accelerated schedule, East Coast Demolition is using heavy equipment and a specialized dust control machine called the DustBoss Atom.[™] This approach improves safety and drastically reduces the amount of time needed for internal stripping.

"We're able to separate and recycle more than 85% of the material, including concrete structural constituents, piping, etc.," says Webb. "This environmentally sustainable approach is a foundation of our business and also an element that sets us apart from other contractors in the region."

Dusty Business

Dust and demolition are inseparable. Some pros can tell what kind of materials are being demolished merely by the smell of the dust. However, smelling the dust is what demolition companies are trying to avoid. Webb points out that the company's objective is to control both visible and unseen particulates.

"When people see plumes of dust, they get concerned," Webb says. "We could have a worker with a hose spraying down the material but often times this isn't enough to cover a widespread area. It's the dust you can't see that's really harmful, so our goal is to control even the smallest dust



The DustBoss Atom[™] controls dust on storage piles during the separation process for recycling.

particles."

Atomized misting machines are more effective than hoses, because the millions of tiny droplets they create capture particulates at the point of emission, pulling the dust to the ground before it can travel long distances. Hoses provide only surface suppression, leaving airborne particulates of any size free to roam off the site.

The greatest drawback to basic control methods such as hoses and sprinklers is droplet size. Water droplets produced from hoses and sprinklers are simply far too large to produce any meaningful benefit in controlling airborne dust particles. Atomized mist is a much more effective option, as it relies on the principle of creating tiny droplets of a specific size range and delivering them over a wide coverage area, inducing collisions with dust particles so they quickly settle to the ground.

"We set up dust monitors at either end of the site to ensure that even the smallest fugitive dust isn't escaping the site line," says Webb. "The DustBoss units do a great job of pulling particles out of the air, so our monitors rarely register any change from normal atmospheric dust levels and show no toxic emissions."

Indoor and Outdoor Suppression

A few years ago, East Coast Demolition started using atomized dust suppression with two DustBoss[®] DB-60 cannons, which are mid-sized fan-driven designs. The DB-60 units have an adjustable throw angle from 0-50° elevation, and when they're equipped with optional 359° oscillation, each one can cover more than 125,000 ft² (11,600 m²).

Having successfully utilized them on large private and government contracts, site managers felt that the DB-60 units were too powerful for this project. Operators needed a small and maneuverable dust control solution with a self-contained power source. Working with BossTek[®], the manufacturer of DustBoss products, managers decided to try two of the company's innovative DustBoss Atom machines, which are powered by a diesel engine and are easily moved by a single worker.

Since the Kingsmill project featured tight areas that require more precision, the DustBoss Atom produces a highly

pressurized water stream that fractures into mist. Using its oscillating head, the compact unit delivers both airborne and surface suppression at a fraction of the water volume of manual spraying, helping to minimize oversaturation and pooling.

A standard hand-held ¾-in (19mm) hose attached to a hydrant generally delivers up to 22 gpm (83 lpm) of water. Instead of relying on water pressure, the Atom uses a 1-in (25mm) hose attachment from a water source running to a pump powered by a 9.1-hp (6.8kW) diesel engine. The increase in pressure from the pump rather than relying on pressure from the hydrant means the design uses only about 7gpm (26 lpm). This greatly reduces wastewater runoff and the amount of standing water in the area, allowing the machine to be distant from the water source and still deliver superior dust control.

With a throw of approximately 100 ft (30m), the unit's 0-65° vertical adjustment and 100° maximum oscillation range increase the coverage area to 6,100 ft² (567 m²). Using the unit's hand-held remote control, operators are able to set the oscillation range from the cab of their rig or at a safe distance from the demolition zone.

"A single worker was able to wheel the Atom around by hand, place it, determine the optimum settings, and go do something else," Webb says. "This is a lot safer and more cost-effective than standing there with a hose in a puddle of water near large equipment and falling material."

Safety, Cost and Time

There were some clear advantages to having precision dust control. One is that workers can stay protected in enclosed cabs and change the Atom's settings with a remote control. Another is the dust's effect on equipment. In the past, workers performing demolition inside structures had to clean the excessive buildup of dust out of equipment air intakes and radiators to prevent engine breakdowns. Since dust is addressed at the point of emission, this activity is reduced considerably, saving maintenance time and protecting valuable equipment.

"Having workers protected in their equipment allowed the soft stripping process to go much faster, so we could complete the project days ahead of schedule," Webb added.

Tyrolit Drilling System Goes Underwater

For two months at the beginning of 2021, an artificial lake in Milan, Italy, was the setting for the use of Tyrolit drilling equipment. The task was a demanding one. More than 30 14x157 in (350x 4,000 mm) holes to be drilled so that poles could be inserted to serve as a mooring points for boats close to the shore. Contractor Expertagli Aosta, a subsidiary of the Edil Taglio Cemento Group, decided to rely on Tyrolit equipment, as it was not feasible to be carried out with conventional machines.

Particularly challenging was the fact that the work had to be carried out in a water 13-16 ft (4-5 m) deep. Further complicating things were poor visibility underwater, and the lake bottom sediment. But Tyrolit's special tools and machines were up to the challenge.

With a capacity for diameters up to 39 in (1,000mm) and an optimised drill bit attachment for larger diameters, the DGB1000 drilling gearbox was the ideal tool for this project. The DGB1000 was supported by the 33.5-hp (25kW) PPH25RR drive, providing optimum cutting speeds with its four-stage control. The project was completed successfully within two months and the Tyrolit machines proved to be ideal for versatile and complex tasks.

www.tyrolit.com



In total, 32 cores with a diameter of 14 in (350mm) had to be drilled for the installation of the docking poles.

The Tyrolit DGB1000 drilling gearbox proved to be ideal for the underwater drilling task.









Asphalt Pavement Recycler

Conjet on

As one of the most important manufacturers of hydrodemolition equipment in the world, Conjet is going through a dynamic period of development and expansion.

Earlier this year, the company introduced Conjet Connect – a cloud-based solution for easy fleet management, including real-time monitoring of operational data, diagnostics, and data history.

“Our goal is to be in the forefront of new technology and to always meet customer demands as well as to be compliant with industry standards and regulations,” says CEO Robert Kreiberg.

The need to stay connected has been called for since around 2010 when the Industry 4.0 (the fourth industrial revolution) term was first used at an exhibition in Germany. The cornerstones of Industry 4.0 are interconnection, technical assistance, and decentralized decision-making. By utilizing the tools for analysing the collected data, owners and fleet managers are provided with the means to further improve the utilization of the proper resources. The data is accessed through a normal mobile or stationary device such as a mobile phone, tablet, or a PC. Conjet Connect combines the user-friendly graphic interface, incorporated in all machines in the 7-series, with key



Conjet CEO Robert Kreiberg.

sensors in the underlying design of the machines, to communicate with the Internet where variables are stored for instant or subsequent retrieval. The data variables include operating- and auto-hours, active alarm, serial number, fuel level, system pressures, operating status as well as other key variables, in real time, for instant monitoring and diagnostics of the running system over time.

Sales agreement with Austrian Reprotex

Another highlight of Conjet's year is a new global sales agreement with Reprotex GmbH. Headquartered in Austria, Reprotex develops and manufactures mobile wastewater treatment plants for containing, treating, and recycling wastewater produced in all types of high pressure (HP) water applications, including hydrodemolition, tank cleaning, ship repair and dae-coating, pavement demarcation, and many other industrial cleaning operations. With the growing demand for hydrodemolition and other HP water applications, it is important to ensure that operations are performed in a sustainable manner. This includes the need to capture and treat wastewater before discharging it into the environment. With this innovative system, the wastewater can also be recycled and reused, further decreasing environmental impact and operating costs for contractors.

“The partnership of our two companies merges two innovative technologies into a new and unrivalled application: hydrodemolition in a closed water circuit,” says Kreiberg. “Safe, cost efficient, and sustainable, Reprotex technology is a perfect match for our clients as well as the environment.”

Conjet's new cloud-based management system Conjet Connect.



From left, Conjet America CEO Stephen Sistrunk, Key Account M in front of Conjet's new office and warehouse in Charlotte, NC.



Demotour in Europe.

the Move



Newly employed Operations Manager in Charlotte, USA, Andy Antle.



Conjet's new headquarters on Dalarö, Sweden.



Conjet Marketing Manager, Rebecca Nilsson.



Production Manager Mariusz Stabryla.



Warehouse Manager Karl Fritz.



Joakim Söderström strengthens the warehouse team.

Manager, Rick Larsson, Andy Antle, Conjet's New Charlotte Operations Manager and Customer Support Manager Tim Best



New offices, manufacturing in Sweden and the USA, new employees and new distributors

Conjet AB has now moved its head office from Haninge, where the company has been since the early 1990s, to new offices and production facilities in Albybergsringen 118 on Dalarö outside Stockholm. The relocation is a result of Conjet's growth in recent years due to the increased interest in the company's products and solutions, where the workforce has also increased to 30 people in Sweden. "The relocation of our business is the culmination of an exciting year for us in 2021," explains Robert Kreicberg. In addition, Conjet has recently launched a new North American headquarters in Charlotte, North Carolina. Several new distribution partners have also been established in Europe, Asia and South America. To this must be added that the staff strength has been strengthened both in Sweden and abroad. We have previously writ-

ten that Steven Sistrunk has been appointed CEO of the American subsidiary and that Rickard Larsson has been hired as Key Account Manager and Tim Best as customer support manager. Recently, Any Antle was also hired as Operations Manager in Charlotte. Here in Sweden, several new positions have been filled, such as the fact that Rebecca Nilsson was hired as Marketing Manager some time ago. Karl Fritz has been hired as Warehouse Manager and that colleague Joakim Söderström has strengthened the warehouse team. Mariusz Stabryla was also recently hired as Production Manager at the facility in Dalarö. To this must be added that Conjet conducted a road show in Europe during the autumn where they visited several of their distributors and demonstrations with their machines and of course Conjet Connect, under the leadership of Conjet's Service Manager Conny Tångring.

www.conjet.com

Conjet Automated Concrete Removal Saves the Day in Salt Lake City

To support expected economic growth, experts predict that massive global infrastructure investment will be needed between 2017 and 2035.

The question arises however if the labor market will be able to support any investment. Clearly, there is a need for automation that can maximize productivity, particularly when it comes to infrastructure construction projects. Fortunately, innovative equipment manufacturers, such as Conjet AB, and its customers, are working hard to solve these challenges. An ongoing car parking deck rehabilitation project in Salt Lake City, Utah, provides an excellent case study on this subject.

High profile renovation project

In December 2019, the Church of Jesus Christ of the Latter-Day Saints began a large renovation project in the heart of downtown Salt Lake City, Utah. Set amid administrative buildings, the plaza consists of an impressive landscape of fountains, flower gardens, grass, and

other vegetation. Below the plaza a three-story garage built in 1962 had been experiencing leakage from the water circulation system and landscape directly above. To clear the landscape area for renovation and address the leakage, the entire plaza of landscaping and concrete architecture would have to be removed along with the waterproofing layer on the carpark's concrete roof. Complicating matters, the waterproofing layer contains asbestos from the original construction. As structural engineers developed the scope of work and renovation timeline for the plaza, they estimated that excavation would reveal 2% to 5% delamination of the concrete roof.

The Church hired Jacobsen Construction to serve as general contractor in charge of the overall renovation of the Salt Lake Temple and Temple Square. In March 2020, renovation work began with site excavation, where it was discovered that there was, in fact, a 70% to 90% delamination across the entire 2.1 million ft² (200,000m²) roof area. This unanticipated condition presented a major risk of significant project delays. Jacobsen quickly called in a demolition subcontractor to start removing the top layer of damaged concrete, totaling between 140,000 and 180,500 ft² (13,000m² to 16,722m²). The subcontractor immediately got to work with a crew of 12 operating six large jackhammers. However, it became clear that the project would be delayed by an additional two years, minimum, due to the massive amount of concrete to be removed. At this point, Jacobsen's culture of resourceful creativity came into play as it searched for innovative technologies that could automate and increase efficiency compared to the manual jackhammer removal process. Fortunately, it did not take them long to discover the ACR™ robots manufactured by Conjet AB.

Increased efficiency

Jacobsen and the Conjet team had a detailed meeting where Conjet explained the efficiency, safety, and quality advantages of ACR™ and hydrodemolition. Jacobsen then connected Conjet with one of its most capable subcontractors, TID Demolition, which could further investigate the application and advantages of ACR™ for the renovation. Although TID had no prior experience of hydrodemolition, Conjet's team was able to explain the process and answer all of their questions, such as the key factors to consider when performing hydrodemolition, the ACR™ robots' operation, productivity capabilities as well as how to handle water containment and treatment.

After multiple meetings with Conjet, Jacobsen and TID decided to try out the ACR™ technology. In June



TID Demolition used the Robot 557 to remove concrete in 200-ft² (23,000m²) area in approximately 2 in (50.8 mm). Photo: Intellectual Reserve, Inc.

2021, TID purchased a Conjet ACR™ Robot 557 standard model and began work on the Temple Square renovation. As the Robot 557 was delivered to TID, Conjet provided start-up training using the Conjet University curriculum. In the first week of operations, TID's main operator became comfortable using the Robot 557. By the second week, the productivity advantages of ACR™ became clear. The Robot 557, along with two TID employees, was removing on average each hour the same amount of concrete that required the previous contractor to spend three full days with 12 employees using jackhammers.

TID's early productivity results caused project engineers to re-evaluate the timeline once again. The initial phase of work involved a 64,000 ft² (6,000m²) removal area. Using jackhammers, it was estimated to take until February 2022 to complete this initial phase. However, with the ACR™ Robot 557, TID finished this removal in September 2021. In fact, due to sequencing conflicts with the garage below, TID has begun moving the 557



New concrete is applied over the hydrodemolition area, strengthening the parking deck roof and preserving the structure for many years of continued use. Photos: Intellectual Reserve, Inc.

Concrete Day in

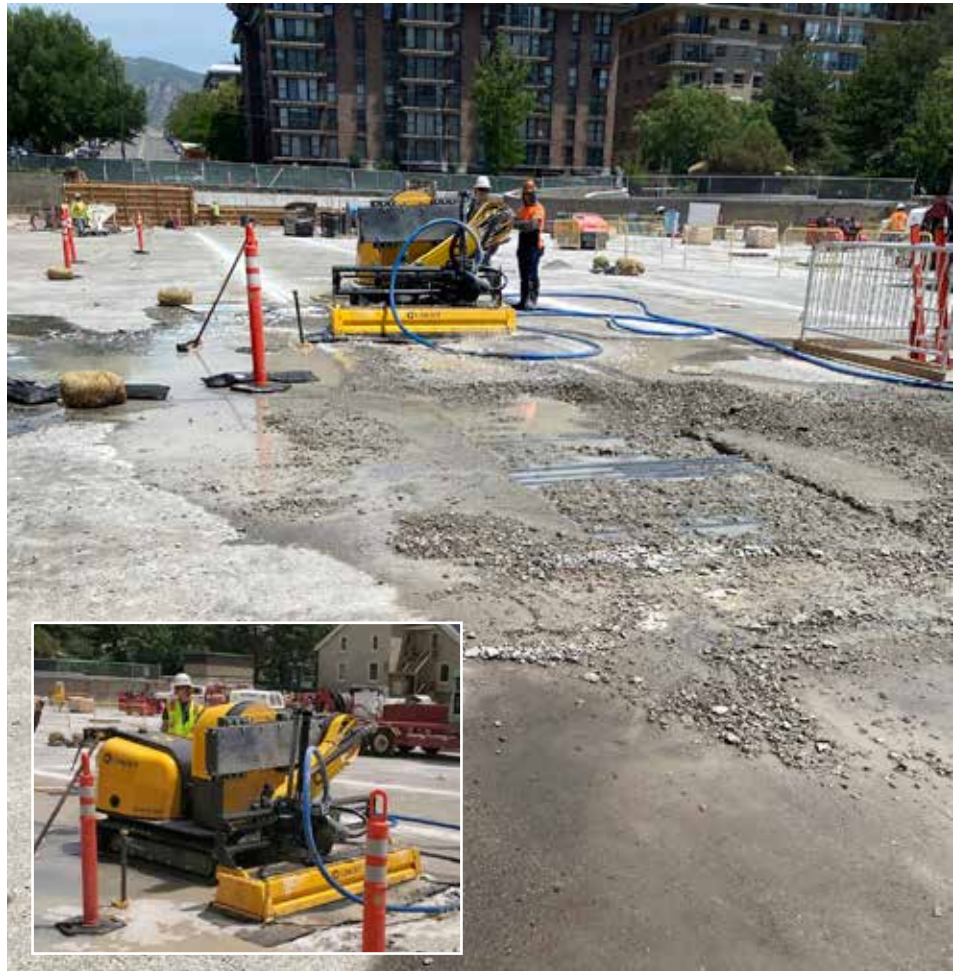


t (61m) sections at a standard, predetermined depth of app-

for work on other jobsites in between work sprints on the plaza project. Along with the ACR™'s productivity gains, there have been other, more qualitative benefits. Because the plaza is surrounded by offices, Jacobsen was receiving many complaints about the loud noise created by jackhammering. In contrast, the Robot 557 and pump are relatively quiet and have drastically reduced the number of noise complaints from surrounding office workers.

"We have been extremely impressed with both the ease of use and the productivity of the 557," says Travis Keenan, TID's project manager. "With the 'Conjet One' operating system and just a couple days of training, our field employees were able to quickly become comfortable and adept at the ACR™ process."

Keenan admits to being "blown away" by the productivity gains. "When we first were brought into the Temple Square project, the general contractor set what we thought was an aggressive target for concrete



Using the Conjet ACR™ Robot 557, just two TID field personnel were able to drastically outperform a crew of twelve workers with jackhammers. Photo: Conjet Inc.



The plaza area of Temple Square is being renovated as part of a larger, four year project to enhance, refresh, and beautify the historic Salt Lake Temple and its surrounding grounds. Photo: Intellectual Reserve, Inc.

removal per day," he explains. "With Conjet's ACR™ technology we have been able to actually exceed that target. We could not be more pleased with our decision to bring the ACR™ Robot 557 into our arsenal of tools."

Bridging the gaps

When the unexpected bad news was first heard by Jacobsen that the amount of delaminated concrete in the plaza was way higher than the original estimates,

the timeline for completion was pushed back two years to July 2023.

Since adoption of the Conjet ACR™ Robot 557, the completion date for removal of all delaminated concrete was moved up to July 2022—a full year earlier than would have been possible using the manual jackhammer process. In addition, TID estimates that the automation and productivity of the 557 has reduced the amount of labour needed by 30,000 to 40,000 staff hours.

Aquajet Offers Ecosilence 3.0 For Quiet Operation and Reduced Fuel Consumption



The new Ecosilence features integrated auto start/stop technology which temporarily shuts down the engine when not in operation to reduce idling time by up to 50% and reduce fuel consumption.

Aquajet offers the Ecosilence 3.0 that reduces noise and allows for a more compact jobsite, while enhancing environmental stewardship and lowering overall operating costs. The new Ecosilence features integrated auto start/stop technology that improves fuel consumption, saving as much as 6.6 gallons (25 liters) of fuel a day.

The re-engineered Ecosilence is more compact as well. The entire self-contained system fits inside a standard, 20-ft (9m) shipping container. It also produces less

noise while in operation, making it ideal for use in urban areas with limited space and strict noise restrictions. The new unit also has dramatically improved pumping pressure, operating as high as 43,511 psi (3,000 bar), and providing ample power for applications such as concrete renovation and road and bridge repair.

The Ecosilence 3.0 features an environmentally friendly, low-emission engine and high-pressure pump to power Aquajet's range of Aqua Cutter hydrodemolition

robots. The skid-mounted unit employs auto start/stop technology, which temporarily shuts down the engine when not in operation to reduce idling time by up to 50%. The engine automatically starts up when operation resumes, saving money and significantly reducing emissions. The integrated engine and high-pressure pump unit pairs with a state-of-the-art liquid-to-air heat exchanger to provide quiet, efficient operation for all hydrodemolition applications.

The new, skid-mounted engine and pump are isolated and heat regulated in a sealed compartment at the front of the container, limiting noise to allow operation in urban areas and other noise-sensitive environments. This innovative design also prevents debris or outside air from entering the engine chamber during operation. That means the Ecosilence can be used in harsh environments such as harbors or cold weather without negative effects.

Like all previous Aqua Power Packs, the Ecosilence 3.0 is easy to transport and set up. It measures 20x8x8.5 ft (6.1x2.4x2.6 m) while maintaining innovative sound-absorbing features such as insulated walls and doors. Despite the shorter overall

The self-contained Ecosilence 3.0 fits in a 20-ft (9m) container for easier transportation, while maintaining ample space for a work bench, tools, hose storage and an Aqua Cutter hydrodemolition robot. The container has an innovative sound-absorbing design to reduce noise.



Aquajet's new Ecosilence 3.0 offers a number of innovations including an integrated, low-emission engine with the latest technology and a liquid-to-air cooling system. It employs auto start/stop technology, which temporarily shuts down the engine when not in operation, reducing idling as much as 50%.

length, the container still provides ample storage for Aqua Cutter robots, accessories, and tools. Additional options are available to customize this work area, such as a built-in workbench with a vise that provides space for jobsite maintenance and spare parts storage.

The Ecosilence 3.0 is available in several pressure and flow combinations, allowing operators to scale equipment to meet their specific needs. To help contractors select the ideal unit, Aquajet has launched the online Aquajet Configurator to walk operators through a number of standard and optional features for a totally customized Ecosilence 3.0.

www.aquajet.se



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Eco-Friendly R

Hydrodemolition Suite Provides Ecological and Economic Benefits for Garage Restoration

With decades of experience in new construction and commercial renovation, general contractor and construction manager Arguson Projects Inc. understood the logistical challenges posed by a multi-year, multi-million dollar parking garage renovation in Toronto's East End. The 39-year-old structure — an open-air parkade with a roof deck, two suspended slabs and asphalt on grade — needed to remain open while crews removed 200,000 ft² (18,581 m²) of material from the second and third levels. Building tenants required parking to remain open, as well as continued access to the roof deck, which provided amenities for employees.

The suspended slabs within the parkade were heavily contaminated with chloride ions, or road salt, resulting in significant corrosion-related deterioration and cracking. The concrete needed significant repair/replacement to address structural integrity concerns and overall aesthetics of the suspended slabs. Working with RJC Engineers, a Canadian-based engineering firm specializing in parking facility design and restoration, Arguson determined hydrodemolition was the only concrete removal option that fit the unique needs of the project.

Part of the building sits on the roof deck, meaning vibrations needed to be eliminated wherever possible. The building is also home to a prep school with athletic facilities located just south of the parking structure, requiring both noise and dust control to minimize disruptions to students and faculty. A nearby hotel also made nighttime noise an issue. The project managers needed a solution that would limit dust and other environmental impacts but was also quiet enough to proceed with the renovations during normal business hours.

Arguson brought on Conterra Restoration, a Canadian-based contractor with extensive Hydrodemolition experience. The company presented Arguson with a cutting-edge solution that not only provided the productivity to meet deadlines, but also minimized impact on the tenants and environments. Conterra sourced an Aqua Cutter 710V — a Hydrodemolition robot which could provide 25 times more productivity than a large crew using conventional equipment — supplied by Cor-Blast Services Inc. The 5,181-lb (2,350kg) Aqua Cutter 710V uses a 14,500- to 40,000-psi

(1,000- to 2,758-bar) water jet, which removes concrete by widening existing pores and micro cracks in the weakened structure. Since the process is impact-free, there are no vibrations, and therefore less risk of microfractures. Hydrodemolition also cleans and descales rebar without damaging it.

The plan also featured an Aquajet 700 Ecosilence high-pressure pump, which is quieter than other high-pressure pump systems, while still providing ample power for the project — 56 gallons/min (212 liters/min) at 18,700 psi (1,290 bar). This would keep noise to a minimum, allowing crews to work during the day without disturbing tenants. Additionally, the Ecosilence allowed Conterra to work throughout the year, even when temperatures hit -4° F (-20° C).

The contractor also included an EcoClear water treatment system as part of its tender. This unit provides on-site water treatment in real time for less than a penny per gallon. After passing through the EcoClear, wastewater can be released into the sanitary sewer system. With the project requiring in excess of 10 million gallons of water, this presented significant cost and carbon savings compared to alternatives, such as trucking the wastewater out with vacuum trucks.

Record Removal

The project was broken into two phases over two years, commencing in December 2019. Conterra set up a staging area outside the parkade for the Ecosilence and EcoClear. Depending on the day, the Aqua Cutter robot could be up to 615 ft (187 m) away and several stories above the pump system. Arguson and Conterra have a dedicated crew of workers and subcontractors on-site with a small contingent running the Aqua Cutter and support equipment. The Hydrodemolition removal process is monitored by one operator/technician with some assistance monitoring the EcoClear. Additionally, a team follows up behind the robot to remove the demolished concrete. Other crews are employed removing through-slabs, forming and other tasks throughout the site. For the most part, the robot removes concrete up to 5 in (13 cm) deep.

During an 8-hour shift, Conterra sees removal rates of 600 to 1,000 ft² (55.7 to 92.9 m²). Had they opted for manual removal, Porciello estimates it would take a crew of 20 — averaging 30 ft² (2.8 m²) per person per day — to achieve the same productivity for removal only. Plus, the project would have been limited to overnight shifts to avoid noise disruptions for the building's tenants.

Working with Water

To minimize disturbances and maneuvering equipment around the jobsite, Conterra works on a designated



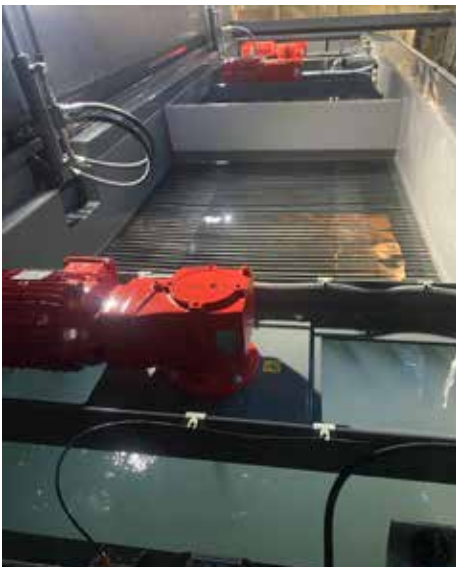
Conterra set up a staging area outside the parkade for the Ecosilence and EcoClear. Depending on the day, the Aqua Cutter robot could be up to 615 ft (187 m) away and several stories above the pump system.

The 5,181-lb (2,350-kg) Aqua Cutter 710V produces a high-pressure water jet removes concrete by widening existing pores and micro cracks in the weakened structure.

Renovation!



Conterra Restoration and a suite of Aquajet Hydrodemolition equipment provided an eco-friendly solution during a multi-year, multi-million dollar parking garage renovation in Toronto's East End.



With the EcoClear, Conterra can reduce blast water pH by more than one-third and suspended solids to 50ppm or less.

section of the first suspended slab and continues down to ground level. This also allows the team to take advantage of gravity in its wastewater collection plan. Water is routed through existing drains and a system of clear stone filtration to a catch pit near the staging site. From there, it is pumped through the EcoClear — which can process as much as 5,283 gallons (20 m3) per hour — on its way to the sewer. With the EcoClear, Conterra can reduce blast water pH from 12.5 to between 7.5 and 8.5. The system uses carbon dioxide rather than mineral acid to reduce pH. This eliminates the risk of acidifying the water and requires less in the way of oversight, training and PPE. The EcoClear also reduces suspended solids to 50ppm or less.

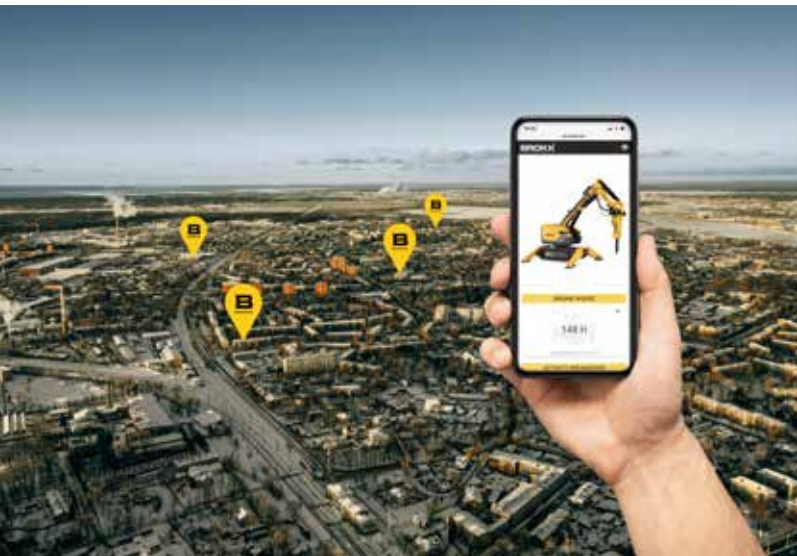
With a closed-loop system, blast water is treated in the EcoClear. Then the clean water is reused in the Ecosilence. Conterra plans to begin running this setup in the near future. A small percentage of the water is lost to evaporation, but Conterra estimates the process can collect, treat and recirculate up to 75% of the water used by the hydrodemolition robots. Depending on application, some contractors have seen recapture rates up to 90%.

As with many projects during the global pandem-

ic, the parkade restoration's timelines have suffered. Conterra lost 13 weeks due to COVID. Thankfully the work ethic of the dedicated project team and the productivity of the Aquajet equipment has minimized the shutdown's impact. Final completion is now scheduled for late spring 2022.

Images courtesy of Just Porciello, Conterra Restoration Ltd.





Next Step for Brokk Connect

Brokk Connect 2.0 is the next step for the online platform for connected Brokk robots. Announced in February, the online platform is now available across Europe and North America, and will be expanded to the rest of the world next year. Brokk Connect includes both hardware and software that are unique to meet the specific requirements of the operation and management of demolition robots. Brokk Connect 2.0 includes a sophisticated always-on geofencing functionality that helps owners keep control of their fleet of machines, and assists them in the event of theft or unauthorized use. The platform also offers a weekly fleetwide status report to stay up to date on issues that need attention.

"As we said when we announced Brokk Connect, it is a solution that we will continue to develop and expand," says Brokk Group CEO says Martin Krupicka. "Brokk Connect 2.0 is now the next step, but it is definitely not the last."

Brokk Connect leverages data to help owners better manage fleet utilization and optimize project planning. Combined with a Brokk Uptime service contract, owners can rely on Brokk monitor machines status, and troubleshoot any issues remotely and proactively. The result is maximum machine uptime, with the robot always ready for the next job. Brokk Connect is available on all new Brokk robots but can also be retrofitted on to older models.



MB Crusher Presents Three New Sorting Grapple Models

MB Crusher manufactured three new models of sorting grapples are designed, and built with the company's philosophy in mind: to simplify the work on-site, reduce the time spent processing material, and save on operational costs. Applications for the grapples include handling logs, stones, debris, poles, positioning stones for drywall, clearing branches, and many more.

The MB-G350 weighs 187.4 lb (85 kg) and is compatible with mini excavators weighing from 1 to 2.5 tons. The MB-G450 weighs 644 lb (292 kg) and can be installed on midi excavators weighing 3 to 6 tons.

Small and compact, versatile and safe, agile and precise, both grapples have a wider opening than any of the other grapples on the market. Despite being small, they can still pick up and handle large materials. They are equipped with a fall prevention valve, guaranteeing safety on the job site. The parts prone to wear are made of Hardox steel.

Both models are designed to have an electrical kit installed for dual-acting hydraulics, allowing both grapples to utilize 360° rotation, even with mini excavators that only have two hoses.

Like the larger models, the MB-G450 sorting grapple comes with interchangeable blades, which can be flipped around, extending the life of the blades. Finally, both units are offered with or without a rotation turret.

Both grapples can have accessories installed to simplify managing materials: the clamshell kit is perfect when collecting and handling small material, picking up soil, gravel, and sand. The multi-purpose blade kit helps pick up oddly shaped materials.

For the MB-G450 sorting grapple, users can install the tilting lift rubber protection kit to manage angular blocks and delicate material.

For 18t to 25t excavators, there's the new MB-G1000. Weighing at 3,560 lb (1,656 kg), the model has been reinforced without losing its agility and ease of use.

Standard features include a dual motor, which allows for greater rotation and closing force. Blanking valves installed on the hydraulic cylinder, allowing the unit to be more precise when handling materials. This new model also comes with an inclined plate, allowing the unit to work regardless of the angle, and has the 360° hydraulic rotation, allowing the grapple to pick up materials in all working conditions efficiently.

It's also equipped with a safety valve, preventing accidental openings if the excavator's pressure drops. There's also a silent block, allowing the unit to work in areas where you need to be mindful of the noise.

Depending on the work, the MB-G1000 model can be equipped with a variety of accessories. The grip improvement kit for the blades allows the unit to handle materials with a better grip and greater control, perfect for materials of particular weight and shapes. The multi-purpose blade kit consists of a double blade—one side has teeth while the other is smooth. Another accessory is the tilted lift rubber protection kit, which handles angular block or delicate material. Lastly, there's the clamshell kit to collect and handle small materials.

www.mbcruiser.com



Pentrunder to Debut RS2 at World of Concrete

Last year's launch of the Pentrunder RS2 wall saw in selected European markets generated was greeted with a very favorable response, with customers in the United Kingdom nicknaming the new machine the "pocket rocket."

"Now, the RS2 is ready to make its debut in the US market at World of Concrete 2022. We launched the RS2 in selected European markets in order to keep up with the demand," explains Pentrunder marketing director Marie Peil. "We already have a very good order stock and the interest has been even bigger than we expected. The RS2 will now be rolled out in the rest of the world, starting with North America and Australia."

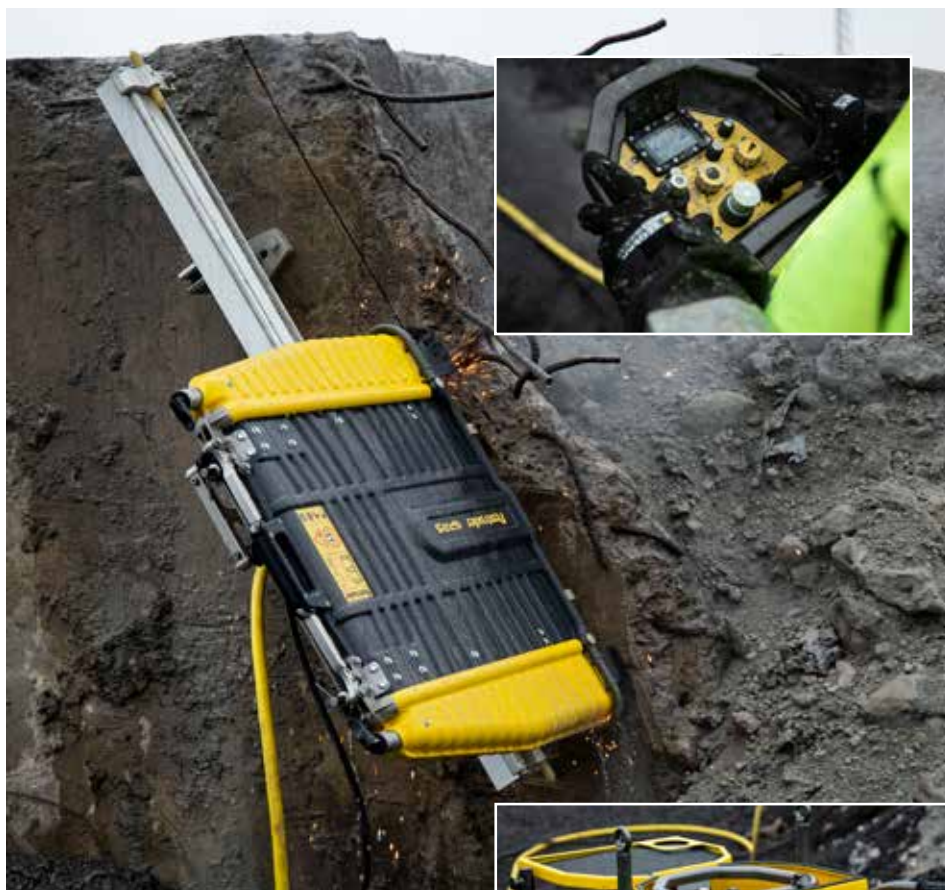
Pentrunder power and reliability

Pentrunder machines are well-known among professional concrete cutters for their power and reliability, and the RS2 has been developed to meet the high demands and expectations of the customers. The medium-sized wall saw is basically a perfect all-round saw for the majority of jobs. The saw is small, and the saw head weighs less than 55 lb (25 kg), including the integrated 24-hp (18kW) motor. O optimal blade size for the RS2 is between 26 and 54 in



(584 and 1,371 mm) with maximum blade capacity of 63 in (1,600 mm).

The HFI-system comes with a new compact and lightweight high-cycle power pack. The RS2 saw head and PP3 Pentpak are connected with only one cable in order to shorten the setup time. The Pentpak 3 is a much lighter power pack than Pentrunder's previous generations, all to keep the total weight of the system as low as possible.



Another important feature is the system's modularity. The classic Pentrunder track system with the TS-track is much appreciated by customers for its stability and low weight. The RS2 runs on the same track as the well-known high cycle wall saws and has the same distance between the blade and the track feet.

"The innovative design especially the integrated motor system, and ease of operator use that the saws showed on the demonstration were a 'no brainer' as far as we were concerned," says Colin Walker, managing director at Truecut Diamond Drilling Ltd. "From the low maintenance build to the 18Kw of maximum power output, simple power and blade connection and the dynamic guard design 'ticking all of our boxes,' we very much look forward to the adding the future modular units as they become available."

The new Pentrunder RS2 at World of Concrete booth



D244, which Pentrunder will share with US distributor ICS Oregon Tools Inc.

www.pentrunder.com



New Sennebogen 728 E Tree Care Handler is Made for the Extreme

If you talk to professionals in the field of tree maintenance or problem tree felling, one thing quickly becomes clear-- safety and precision are the key criteria. When the manual use of the chainsaw reaches its limits, tree care handler come into play.

The new Sennebogen 728 E has extremely long work equipment consisting of a 30-ft (9.2m) compact boom and a 20-ft (6m) telescopic stick, which can be quickly retracted and extended continuously by an additional 8 ft (2.5m) and under load at the push of a button. Complete with equipment, the machine easily achieves a working range of up to 69 ft (21m). Thanks to the robust mobile undercarriage with a support width of around 4 m and pneumatic tires, the machine is always safe and stable.

Optimized for use along roads and forest paths, the 728 E with a transport dimension of 10 ft (3m) can also be transported quickly and easily by low-loader or, with individual road approval, can easily be moved directly from site to site as a mobile machine. Trees and shrubs along traffic routes can be removed safely and precisely with minimal manpower. Thanks to the machine's compact dimensions and fast operation, traffic disruptions can be minimized.

When designing the tree care handler, special attention was paid to safety and operator comfort in daily operation. In the comfortable Maxcab, in addition to the outstanding all-round visibility from the cab, the operator can also look forward to particularly ergonomic controls and a comfort seat.

Protected by roof and front grilles as well as windscreens and side windows made of bullet-proof glass, the machine can be configured according to customer requirements. The spacious cab itself offers a panoramic view over the entire working area, while cameras provide additional support.

The necessary power is provided by a powerful 188-hp (140 kW) Stage V diesel engine, which reliably drives the two hydraulic circuits. Like all Sennebogen tree care handlers, the 728 E comes with a separate, generously dimensioned auxiliary hydraulic system for independent operation of the attachments as standard. Depending on the



intended use, the machine can be operated with a grapple saw, mulcher, cutting unit, and more.



Thanks to the long range, powerful hydraulics for a wide range of attachments and the mobile undercarriage, the 728 E is unbeatably fast in landscape maintenance and fuel timber harvesting, with a constant focus on "safety first."

www.sennebogen.com



With a range of up to 69 ft (21m) and a wide selection of attachments, the Sennebogen 728 E tree care handler is particularly suitable for maintaining trees along roads and paths.



Safe, precise work instead of dangerous, personnel-intensive tree felling. The Sennebogen 728 E is the efficient and safe alternative to manual tree maintenance along the traffic routes and in problem tree felling.

SDF SLAB SAW BLADES



Who says you can't improve on perfection?

**Unique deep segment undercut protection blades -
now available in all of our popular slab saw bonds**

This design offers excellent blade protection, whilst still providing a full set of segments resulting in extended product life.

Now you can cut in the most demanding applications with the assurance that fast cutting speeds, extended segment life and full blade protection are all combined in one great product.

*Just when you thought it
couldn't get any better.*

Klindex Expander 2000, Almost a Grinding Robot



The new Klindex Expander 2000 RX/AT is a remarkable product. Not only powerful but also smart, working almost like robot completely on its own.

Italian manufacturer of machines and tools for concrete floor preparation, Klindex, is now promoting their new Klindex Expander 2000 RX/AT. It is a radio-controlled professional grinding machine with three planetary heads, working pressure control, integrated batteries for autonomous transport and Autopilot grinding system.

This modern floor grinder redefines the terms of saving time and labor by turning them into greater profits. Expander 2000 is the biggest Klindex floor grinder and it is a concentrate of technology developed by Klindex over its long history. It contains numerous technical solutions that guarantee incomparable performance and reliability, as well as intelligent systems to increase ease of use for the operator. Expander 2000 is a floor grinder with impressive performance and at the same time easy to transport and use. A practical monster, like Klindex prefer to describe it.

Some main advantages that makes Expander 2000 RX/AT unique

Expander 2000 RX/AT is remote controlled and available with autopilot grinding system. It is designed for excellent manoeuvrability and agility. The machine's steel gear transmission is thermo-hardened. It has integrated batteries for independent handling and operation. The working pressure is electronically adjustable. The tilting of the planetary is automatic for quick and easy tool change. Expander 2000 RX/AT has the ability to work with 3, 2 or with a single head. In total the three grinding heads has all together nine satellites with a diameter of 240 mm each with Ready Cool or Quick Attack systems. The satellites has special anti-shock joints that protects all moving parts in the event of an accidental impact like for instance iron rod. As mentioned, the gear box is made of thermo-hardened steel with no belt to break.



The quick head release system allows to operator to easily choose, according to the needs, whether to work with 3, 2 or 1 single head. This intelligent function not only increases the machine's working time, but also cancels the downtime due to normal maintenance operations. For example, a single planetary head can be serviced while Expander 2000 works with 2 heads. The quick head release system also allows the Expander 2000 to be transported easily with standard commercial vans. No need for special transport or truck.

The built-in batteries of the traction motors move the Expander 2000 independently. Handling on site or loading on the van ramp is made easy and without any effort for the operator who controls everything by the remote control. Further a removable third front wheel reduces machine's bulk.

New Auto Pilot Technology

Klindex has developed a new and exclusive technology of remote automatic control for grinding and polishing machines. With this system called AT (Auto Pilot) Klindex machines can grind on their own the entire area moving forward, turning and coming back, crossing the grinding tracks leaving no untreated parts. Without any interruption, it is also possible to modify all the variables of the machine with a comfortable, handy and intuitive remote control.

Expander 2000 is of course equipped with the new AT, Auto Pilot technology which simplifies a lot of thing while working with the machine. This is for instance the automatic planetary lifting with remote control as well as automatic swing and reverse function. It makes transport-



Two meter working width.



tation easier and offers greater driving power. Further the Expander 2000 design offers automatic grinding of the whole working surface as well as precision edge grinding. All together a machine with really extreme manoeuvrability.

The smart grinding "robot"

Expander 2000 is equipped with 3 powerful motors of 20 hp each (60HP total) and the three heads measure Ø750mm each. Hydraulic pistons allow that the over-turning of the planetary heads will be quick and easy by operating a lever. Tools change is safe, fast and effortless for the operator. The Autopilot system makes the machine able to grind the entire working area on its own. Set up the Autopilot system from the remote control and Expander 2000 will do the job itself. The machine has metal dust conveyors with 3 in 1 hose connection to the standard vacuum system. Expander 2000 is equipped with an automatic nebulizer or sprayer with adjustable intermittence as standard. Suitable for water processing.

The third front wheel simplifies transportation and can be used on very soft floors to allow at the Expander 2000 to discharge pressure. It has also powerful full led lights which makes it suitable to work in low light situations. Expander 2000 has autonomous handling even when over-tuned which means that even in the tool change position Expander2000 can be moved forward or backward. This function makes the operations even more comfortable.

www.klindex.com

Steelwrist Adds SQ90 to Its Range of Fully Automatic Quick Couplers

Steelwrist has introduced the SQ90, the biggest model in its range of SQ Auto Connection quick couplers. The SQ90 is targeted toward excavators up to 70 tons in the demolition industry.

The addition of the SQ90 coupler meets the demand from the demolition industry, where many and fast work tool changes are common.

"The Steelwrist SQ Auto Connection quick couplers have been appreciated by the customers from day one on," says Stefan Stockhaus, CEO of Steelwrist AB. "In the demolition industry with its frequent work tool changes it is all about using the right tool for the right job at the right time. SQ allows operator and machine to work continuously at all times and work safety increases when operators can easily change and use the best tool for the job."

SQ90 as well as all other Steelwrist SQ products follow the global Open-S industry standard for fully automatic couplers for excavators. The standard makes it easier for machine operators and contractors to choose quick couplers, tilt-rotators and work tools from different manufacturers, and be confident that they function together. All SQ couplers come with QPlus technology which enables higher hydraulic flows with less pressure drops than many other systems on the market.

The upgraded Front Pin Lock on the SQ90 is a mechanical lock of the front shaft which significantly limits the risk of an unintended drop of work tools. The patented Front Pin Lock technology has been upgraded to a second generation in order to support the heavy demolition work tools.

About Steelwrist

Steelwrist is a global manufacturer of tiltrotators, quick couplers and work tools for excavators with headquarters in Sweden. A determined focus on robust and modern products, combined with fast service has been appreciated by an increasing number of customers world wide.

www.steelwrist.com



Smart and Safe Demolition Debris

Twinca is probably the demolition industry's most environmentally friendly dumper with efficient and smart loading of demolition debris. Optimal barrows with scissor lift and 85-degree tip angle, battery powered that eliminates pollution and noise, smooth maneuvering with optimal outer dimensions and solid rubber tires are some of the advantages.



Internal demolition work in connection with refurbishment work is the most common type of demolition work. Like all demolition, a lot of demolition material is generated that must be unloaded in an efficient and flexible way.

The predominant aid for unloading has been various types of skid steer loaders and motorized wheelbarrows that transport the material to containers or bulkheads for further processing and transport. But there are other flexible and environmentally friendly solutions for efficient and safe unloading of different types of demolition materials, drill cuttings, concrete drill cores, beams and more.

Danish manufacturer Twinca's dumper is a battery-powered trolley that is easily driven and maneuvered with an ergonomic handle/controller connected to the dumper's swivel front wheel axle. While similar types of dumpers have fixed wheels or crawler tracks that make them difficult to navigate or require the operator to stand or sit on the machine, Twinca's solution makes the dumper particularly flexible in tight spaces. And, the dumpers are all tiltable up to 85 degrees.

Twinca dump trucks are available in four basic models—E-500, E500 Slim, E-500 Plus, and E-800. The Twinca E-500 is the smallest battery-powered unit and has a load capacity of up to 1,100 lb (500 kg). The dumper is perfect in tight spaces and measures 30 in (762 mm) wide and 68 in (1,727 mm) long.

An inch thinner than the E-500, the E-500 Slim is the small battery-powered unloader for the really cramped jobs, such as confined bathroom renovations where old tiles are to be demolished and excellent in combination with a small demolition robot. The E-500 Plus has a load capacity of 1,322 lb (600 kg) and has more engine power and larger battery packs. The largest model is the E-800 with a load capacity of 1,764 lb (800 kg) and is perfect for larger demolition projects where the requirements are higher for unloading rate and capacity. Variants of the ES-500, ES-500 Slim, and ES-800 are equipped with scissor lifts with a lifting height of more than 55 in (1,400 mm) allowing material to be tipped into a container. All offer tilting angles of up to 85 degrees as well.

Long-lasting batteries

All Twinca models have been designed to facilitate the operator's working day, eliminate heavy and harmful lifting and, above all, eliminate contamination through battery operation. The dumpers are powered by maintenance-free batteries that contribute to easy and pollution-free use indoors. They can work a full working day on a single charge and can be fully charged again in 4 to 5 hours.

Twinca A / S is a family-owned company led by Klaus Strøm Kristensen and his son Jesper.



Twinca dumpers are also designed for high safety through a safety device on the steering handle that reverses the direction of travel when activated, which eliminates the risk of the operator getting trapped. The dumper has a maximum driving speed of 4 mph (6.5 kph) and can be continuously adjusted as necessary. Another important advantage is that the dumpers are almost noise-free in themselves and are far below the prescribed levels that require hearing protection.

The dumpers' tipping point is correctly positioned in relation to the front axle, preventing the unit from tipping forward and ensuring operator stability and safety.

Loading of ris with Twinca



Compact equipment is optimal for renovation demolition, a combination of demolition robots, small compact loaders and dumpers from Twinca. The perfect kit for perforation and demolition.



When the production of feeding machines for minks was discontinued, Klaus Strøm Kristensen saw an opportunity when a company that manufactured dump trucks went on sale.

The tipping platform itself is geometrically designed so that sticky or difficult-to-handle material can be easily tipped out of the trapezoidal-shaped platform. The barrow is made of high-quality steel which thereby reduces the dead weight without compromising on durability and strength.

Another competitive feature of Twinca is the price, which is in very good competition with similar competing brands. For the cost of a petrol-powered dump truck, which is also always equipped with crawler tracks, users can buy nearly two battery-powered Twinca dumpers with flexible and soft rubber wheels

that make them easily accessible in the workplace.

"Made in Scandinavia"

A strength of Twinca is that the products have been developed in Scandinavia, more specifically Vinderup in Danish Jutland. It all started with the twin brothers Klaus and Mads Strøm Kristensen founding the company in 1991. The fact that they were twin brothers gave inspiration to the name Twinca. Today, the company is run entirely by Klaus and his family. When it all started, the business was completely different, namely the manufacture of feeding machines for minks. Until the

coronavirus pandemic shut down the industry, Denmark was been the world's largest breeder of minks. With the change in market conditions, it was natural to look to the company's strengths. The Twinca Dumper with annual sales of almost 100 units despite lack of marketing or export became the obvious choice, and the process of shifting focus and manufacturing increased pace. The transition to construction machinery has been underway since 2015.

"The original product models needed major upgrades, so we chose to dump existing models and invest in a completely new design," explains Klaus



Kristensen. "That's how the Twinca dump truck came about. At first, we also had petrol-powered models, but we are phasing them out completely and investing only in battery operation."

"We have had some really tough years in the company building up the new production line for the dumpers and then managing the loss to end the production of the feeding machines, but we are now very optimistic about the future," says Twinca export manager Pornnapa Sawangpakdee. "Our dumpers are attractive in many different ways, not least when it comes to price. Just the fact that they are completely battery-powered also affects the final price to the customer a lot. At the moment, we have very little competition."

Going global

While Europe currently account for about 80 percent of Twinca sales, the US, Australia, and New Zealand are

The scissor lift function makes it optimal and easy to unload demolition materials.



Bright and spacious production facilities in Vinderup, Denmark.



considered to be strong and emerging markets, especially among contractors who work with demolition robots and concrete cutting systems. In January, Twinca will exhibit at the World of Concrete trade fair in Las Vegas together with its American retailer Cratos Equipment, located in Pompano Beach, Florida. A special story about Cratos will be published in PDa 1-2022.

"An important task now is to connect as many new retailers as possible on for instance the US market," says Sawangpakdee. "We strongly believe in the US market and currently we have some 100 units operating there and for the current year we expect to reach another 60 machines."



Motorized wheel barrows and demolition robots are a perfect combination with the Twinca dumpers.



Twinca's ready for delivery in the large warehouse.

Kristensen adds that 2021 sales of Twinca dumpers will reach just over 250 units, a figure the company hopes to nearly double in 2022. He believes they can handle in the existing production facilities. But if the increase in demand continues, which is hoped for, production facilities will have to be increased as well. Already today, those resources are in an adjacent building. Twinca's standard color is orange, but the products can be delivered in basically any color.

"Our dump trucks are the perfect product for machine rental companies," Kristensen says. "They are easy to handle, and little product training is needed. In addition, they can withstand a lot of beatings and need very little maintenance. A perfect product for machine rental companies. Then it will also be useful to deliver the dumpers with company colors and logo."

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Pier-less Power

Remote-Controlled Demolition Equipment Solves Challenging Helical Pier Application

By Mike Martin, Vice President of Operations, Brokk Inc.

When it comes to fast, efficient deep foundation systems, helical piers are gaining traction with contractors across the country. This anchoring method offers minimal ground disturbance and leaves no spoils. There's also no cure time involved — unlike micro piles or other systems — allowing for immediate loading and accelerated project timelines. However, achieving these benefits often comes with site-specific challenges, especially in retrofit applications. While helical piers might provide an ideal solution, finding electric equipment with the necessary power-to-weight ratio to access emission-restricted spaces, such as basements and older buildings with low floor loads, can be difficult.

It's a problem St. Louis-based Drilling Service Co. faced on a recent warehouse retrofit near the city's The Hill neighborhood. The location required zero emissions, which limited the company's equipment selection. The company turned to Brokk, the world leader in remote-controlled demolition robots, for a powerful electric solution. The Brokk 500 not only provided necessary torque, but also offered unrivaled maneuverability that helped Drilling Service Co. overcome several unforeseen challenges to complete the project on time and within budget.

Reputation for Innovative Tech Solutions

At first glance, the brief seemed straightforward — retrofit a 100-plus-year-old manufacturing facility to support new equipment with heavier loads than the building was designed for. However, site-specific challenges quickly piled up, resulting in a more complex project. The single-story warehouse — located in a traditionally industrial neighborhood near the river — likely sat on contaminated soil, requiring an installation method that

limited spoils. Additionally, the facility wouldn't allow the use of diesel-powered equipment within the building. This meant that even though there was plenty of room to maneuver larger diesel-powered equipment, the selected contractor would need to find an electric solution.

The project's general manager approached Drilling Service Co. based on their long history of delivering intelligent, efficient and effective underground solutions. Installing helical piers requires a robust hydraulic system and a specialized drive head that can provide not only downward force, but rotational pressure. Drilling Service Co. would traditionally run the drive head from the auxiliary hydraulics of a mini excavator or skid steer, but with the zero-emission requirement, they knew they'd have to come up with a creative solution. The project required driving large helical piers — 4.5-in (11.4cm) diameter pipe with a 16-in (40.6cm) diameter helical plate — as much as 25 ft (7.6 m) down to refuse on bedrock. After establishing the required loads, they reached out to Ideal Group, the helical pier designer and manufacturer, to discuss equipment options.

Drilling Service Co. worked with Brokk to arrange a one-month rental of a Brokk 500. Ideal Group provided a Digga with a 30ADS anchor drive head and custom mounting bracket that allowed the Brokk to deliver. With the rental, Brokk provided training for Drilling Service Co. employees at their St. Joseph, Missouri, demonstration and service center. The project team had extensive experience with hydraulic drilling equipment, which gave them some familiarity with the basic functions. However, working with the Brokk robot's remote operation gave them a new perspective, allowing them to stand back and observe installation from a safe distance. The training covered specifics of the Brokk machine including maneuvering it, setting the outriggers, operating the arm and running the drive head.

Work Begins

With its team trained and the helical piers delivered, Drilling Service Co. was ready



The Brokk 500's 23-foot (7-meter) reach allowed Drilling Service Co. to access helical pier locations that would have been challenging with traditional mono-boom equipment. This included reaching up, over or around existing equipment in the building when necessary.

to get to work. The general contractor started by saw cutting an approximately 2-ft (.6m) wide section in the 6-in (15cm) thick floor slab running the length of each new grade beam to expose the soil below. However, plans quickly hit a snag when the crew discovered a layer of urban rubble less than a foot below the slab.

Drilling Service Co. quickly revised their plan. Before installing the piers, they needed to pre-drill holes through the rubble, which was 10-12 ft (3-3.7 m) thick. Attaching a 16-in (40.6cm) diameter barrel and auger to the drive head, the team simply used the Brokk to drill through the rubble to the soil below. Once the Brokk created a void through the rubble, the lead of the helical pier was driven through the soil below until it reached bedrock. The Brokk 500's 23-ft (7m) reach allowed the team to access helical pier locations that would have been challenging with traditional monoboom equipment. This included reaching up, over or around existing equipment in the building when necessary. Brokk's 41kW motor was easily powered by a 134-hp (100kW) generator positioned outside the building.

With pier installation complete, Drilling Service Co. capped the end of each pier. The general contractor then cast the capped pipe into a grade beam that was reinforced with rebar, becoming the foundation for the facility's new equipment. More than half of the 46 helical pier positions needed to be pre-drilled. Thanks to the professionalism of the team and the versatility of the Brokk, the work progressed quickly, allowing Drilling Service Co. to complete the entire project in just three weeks.

Piling on the Projects

With a week left on their rental, the contractor was able to complete another helical pier installation at another St. Louis landmark—The Muny. The permanent outdoor theater in Forest Park which hosted its first production in 1916, was installing an elevator as part of a larger renovation project. The project required

17 helical piers of the same size Drilling Service Co. was using on the warehouse retrofit.

With the Brokk already equipped with the drive head, the team was able to quickly relocate to the new jobsite. The crew could only access the elevator shaft through a narrow pergola, so the compact size of the Brokk provided a huge benefit. Additionally, the impressive reach and maneuverability of the Brokk's three-part arm increased efficiency, allowing Drilling Service Co. to access several piers from a single spot. This minimized machine repositioning in the confined space. The Muny project wrapped up in a week and Drilling Service Co. returned the Brokk 500 — until the next time.

About the Author

Mike Martin is vice president of operations for Brokk Inc, in Monroe, Wash. He is an industry veteran with 30 years of experience helping Brokk owners build their businesses with remote-controlled demolition. He also hosts the Brokkology Podcast that tells the stories "Brokkologists" from across North America.

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Images courtesy of Drilling Service Co. Co.





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All Roads Lead to Las Vegas

Now it's soon time for World of Concrete in Las Vegas again. In January 2022, the gates will be opened again and the show is well on its way to regaining their former figures of 1,500 exhibitors and more than 60,000 visitors.

No matter how many iterations of coronavirus-driven "new normal" we experience, one longtime industry tradition is back to its regular wintertime calendar slot—World of Concrete in Las Vegas, January 18-20, 2022.

We finally meet again and again

We all know that the show in June 2021 was quite different from what we are used to, especially since the pandemic prevented most international exhibitors and visitors from attending. Many contractors who might have come to Las Vegas were also busy with jobs and regaining traction lost during the previous year.

But despite significantly fewer exhibitors and visitors, the outcome of the show was very good. There was widespread optimism that the industry's resilience could withstand and quickly rebound from the pandemic's economic effects. There was also a clear will among both exhibitors and entrepreneurs to meet again as soon as possible.

And that time is now. As this issue of PDa goes to press, the new Omicron variant has cast a pall over what has been a welcome return of large gatherings

and long-distance travel. For now, exhibitors that have booked space at World of Concrete 2022 are sticking with their plans to be on hand in Las Vegas. Among the 1,100 exhibitors currently registered for the show (see the accompanying list) are several big-name manufacturers that have planned several product introductions. It won't be exactly the same as in the "before times," as many overseas companies are still in countries in strict travel restrictions. But Omicron willing, it will be a big step in that direction.

Over 1100 exhibitors in 2022

As with the June 2021 event, World of Concrete will be implemented with strict pandemic rules to reduce the risk of spreading the infection. For example, all registration for the fair takes place online and it will not be possible to register at the fair itself. Masks will likely be encouraged indoors, though it's unknown whether they will be required for attendees and exhibitors. Exhibits will be located in the Central, North, and new West halls, and outdoors at Diamond and Silver lots.



As an industry magazine for the sectors demolition, concrete drilling, concrete floor sanding and polishing, decontamination, and recycling, we at PDa is looking forward to World of Concrete 2022 and hope to see many familiar faces from the industry again. As usual, we'll have plenty of copies of both this magazine and our sister publication PDi available for free pick-up. And whether or not you're able to attend, we'll have a complete wrap up of World of Concrete in our first issue of 2022.

Welcome to World of Concrete 2022 in Las Vegas, the city that never sleeps.

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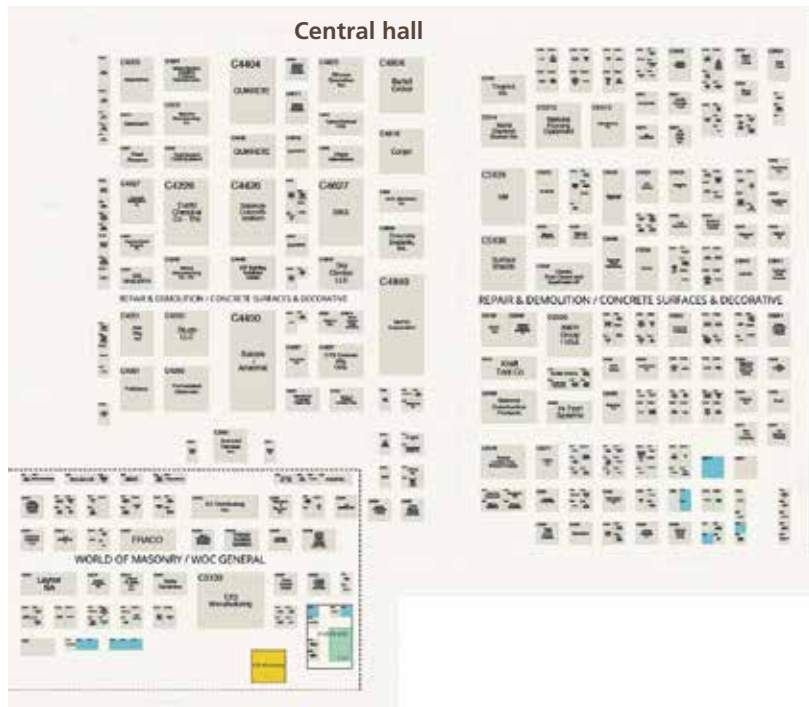


Las Vegas in January

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Selected Exhibitors at World of Concrete 2022

Exhibitor	Booth	Exhibitor	Booth	Exhibitor	Booth
Alpine Rockwheel	W647	Ready Jet Inc.	W1376	Syntec Diamond Tools	C5306
Ammann America Inc	O30167	Runyon Surface Prep Ren	C5176	Terex	W3327
Aquajet Systems AB	W1305	SASE Company, LLC	O30315	Terra Diamond / GDM	C4220
Astec	N737	Scanmaskin	D134	Terrazzo & Marble Supply	C5829
AUSA Corporation	W1205	Sensytec	N1577	Terrco, Inc.	C4879
Autec North America	W3178	SlurryMonster, LLC	O30360	Titan Diamond USA	C4066
Avanti International	C5851		O30366	Toku America Inc.	W3573
Aztec Products, Inc.	O30414	Sonmak Diamond Tools	W819	U.S. SAWS	C5525, O30712
Bartell Global	C4804	Spraystream	C3507	Vacuworx	W1315
BlastPro Manufacturing	C4212	Stihl Inc	W3321	Wacker Neuson	W3905
Bobcat	W3177	Sunbelt Rentals	N2137	Wolff Tools	C5903
Brokk Inc	W1305	Sunward America	W341	World Diamond Source	C5114
Buffalo Turbine	C5882	Superabrasive, Inc.	C5413, D530	Xtreme Engineered Floor	C5659
Bunyan Industries	D839			Xtreme Polishing System	C5489
Canycom USA, Inc.	W3627				
CARDI	O30552				
Caterpillar Inc	W941				
CLEARBLAST	N563				
CSDA	W1105				
CSD Safety Week	N2949				
Conjet	C4816				
Construction Robotics	C3153				
Construction Software	N1447				
Const. Waste & Silica Saf	O30420				
Continental Abrasives	C5684				
Cratos	W553				
CS Unitec Inc	D837				
DDM Concut Diam Tools	W865				
DEWALT	D916				
Diam. Blade Warehouse	C5439				
Diamond Products	D844				
Diamond Products	D853				
Diamond Products	W905				
Diamond Speed Products	C4037				
Diamond Vantage, Inc.	C3639, C3641, C3647				
DITEQ Corporation	D238, W3341				
Dustcontrol, Inc.	C5625				
Dustless Technologies	C5502				
Dymatec	D353				
E-Z Drill, Inc.	W3864				
GSSI	W1417				
Gorilla Concrete Tools	C5611				
Hilti	D1245, N1837				
Husqvarna Construction P	D1200				
ICS Oregon Tools	D244				
Jetstream of Houston LLP	W773				
Jon-Don LLC	O31099				
Liebherr USA, Co.	N929, W1364				
Link Manufacturing	W829				
LISSMAC Corporation	D535				
Liugong Construction M.	W4019				
Makinex USA LLC	C5335				
Makita U.S.A., Inc.	D610, D610a, D610b				
MB America, Inc.	O29967				
Milwaukee Tool	O30800				
Multi Machine Inc.	W3513				
Multiquip Inc	W4231				
National Flooring Equip.	C5213				
New Grind Inc	D123				
OTTO BAIER GmbH	O30458				
PDi Maga/PDa Magazine	C4628				
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Pentrunder Inc	D244				
PR Diamond Products	D541				
Proceq USA, Inc.	N1649				
Quick Attach Attachments	W4041				

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A Universal Solution

Benefits of using crawler skid excavators on a demolition jobsite

By Peter Bigwood, General Manager, Mecalac North America

With any demolition project, crews need reliable, powerful and efficient equipment to not only tear down structures, but also to clean up and organize debris. It's not uncommon to find compact equipment such as mini excavators and skid steers playing a supporting role on these jobsites due to their compact size, lighter weight and maneuverability.

Another compact equipment option has been developed in recent years to bring a skillset well suited for both large and small demolition jobsites. They harness the speed and agility of a CTL and the maneuverability and digging capabilities of a mini excavator. With the addition of exceptional reach and high flow to attachments, they are ideal for demolition jobsites. The keys to their success lie in a variety of benefits.

True Versatility

Imagine a machine that combines the top benefits of a variety of equipment while performing every function equally well. For a smaller-scale demolition job, for example, a crawler skid excavator, like a traditional mini-excavator, is able to fit into a tight area with low clearance and break or perform other functions in any direction without repositioning the machine. At the



From a single position, a crawler skid excavator maintains excellent space management, increasing productivity by letting contractors dig, break or perform a number of functions within an incredibly compact 9-foot (2.7-meter) radius.

same time, it offers higher flow to the attachment than a mini-excavator for greater power and higher reach than a skid steer, maximizing productivity.

Put the same machine on a large jobsite for clean-up and you have a machine that can travel up to 6.2 mph (10 kph) — twice that of a mini excavator and similar to most CTLs on the market — with a bucket full of material and remain stable. Meanwhile, a crawler skid excavator is also capable of digging and loading from a single position, if needed, making it a powerful solution for contractors focused on maximizing ROI.

Wide Range of Motion

The ability to be both as compact and far reaching as possible is a win on demolition jobsites. The crawler skid excavator's boom design takes this

concept to the next level. Consider that the majority of mini-excavators on the market today use a mono boom design, which has a limited overall range of motion. The main arm of a mono boom only allows it to move up and down, with the design relying on the dipper stick portion of the boom to reach, pull and dig. This restricts the ability to work close to the machine and requires more room to operate.

In the close quarters of demolition jobsites, a side-mounted, two-piece boom on a crawler skid excavator offers a decided advantage due to greater compactness and 360-degree range of motion. The articulated design features an arm that is made up of five total joints — one between the second and third sections — that allows for limited side-to-side motion. Bending or straightening each joint in order allows the boom to extend almost straight in any direction. It can then fold back in on itself for maximum compactness, mobility and a zero-turn radius.

This means that, from a single position, the equipment maintains excellent space management, increasing productivity by letting contractors dig, break or perform a number of functions within an incredibly

compact 9-foot (2.7-meter) radius. Operators can take full advantage of these capabilities to ensure attachments are in the ideal position.

Jobsite MVP

To manage limited space and the need for multiple machines, a crawler skid excavator can be the ideal solution for demolition contractors looking to streamline their operations and maximize ROI. A machine that combines the best aspects of similar equipment with optimal performance for multiple functions is game-changing and sure to be the jobsite MVP.

About the Author

Peter Bigwood is the general manager for Mecalac North America. He has more than 25 years of industry and leadership experience with international equipment manufacturers. He serves on the board of the National Demolition Association, and previously served on the board of the Concrete Sawing & Drilling Association.

About Mecalac

Mecalac is an international manufacturer of compact construction equipment for urban sites. Known for its innovative, customer-focused technology, the manufacturer has sales companies, distributors and customers in more than 80 countries. Versatile and multi-purpose equipment is available through five product lines, including: excavators, loaders, backhoe loaders, site dumpers and compaction rollers.

www.mecalac.com



A crawler skid excavator is capable of digging and loading from a single position, making it a powerful solution for contractors focused on maximizing ROI.

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