

# PROFESSIONAL DEMOLITION AMERICAS

Your Gateway to North, Central and South America

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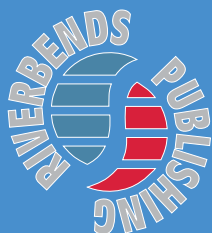
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 The MB Spezialabbruch GmbH drivebreaker,  
 that is used for dismantling of the 738-ft  
 (225-m) high reinforced concrete chimney of  
 the CHP nuclear plant in Jena.

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# Same As It Ever Was... And As It Should Be

PDA magazine's final official issue of 2019 crosses the calendar frontier into a new year and, depending on where one starts counting, a new decade. With it comes the usual reflection about how our lives and livelihoods have changed over the past 12 months, and speculation about what lies ahead. The exercise is particularly eye-popping this time, as many of us grew up with the illusion that 2020 was so futuristic and far away. Now, it's here.

It's understandable if things feel any different, or unchanged. For one thing, the new year arrived mid-week, which meant many of us worked a few days, had a day or so off, then returned to finish up before the weekend. Aside from those who still write checks or date letters long-hand, everything in 2020 was pretty much the way we left it "last year."

And in some ways, that's good. Most construction industry observers predict that the current economy should remain good well into 2020, and perhaps longer. Hopefully for most of you, that means staying busy with more work as the current jobs wrap up.

Whether we're on the cusp of repeating the last century's "Roaring 20s" remains to be seen, of course, and even that storied decade had its problems. (As Billy Joel once sang, "the good old days weren't always that good.") For now, at least, it's a good time to get as much done as possible, and make prudent investments to offset whatever uncertainties may be in the offing.

A new year also heralds the start of another trade show season. And for North American concrete contractors, it's a big one, with a double-dose of big Las Vegas shows—World of Concrete in early February, and Con-expo-Con/Agg mere weeks later. Squeezed in the middle, National Dem-

olition Association's Demolition Austin show will set up shop in Texas. Each show offers on- and off-site allure that will tempt any contractor's travel budget, and many factors go in to deciding which one(s) to attend. One bit of advice that we and many other show circuit veterans can offer is don't simply save the annual World of Concrete for next year. Yes, it will likely be a bit smaller this go-round, but the exhibit mix tends to be more focused on the work most PDA readers are engaged in.

Smaller crowds also means more opportunities for face time with manufacturer representatives, and discussions about how these products can aid in specific applications back home. World of Concrete is also sure to have some product news and surprises that others (i.e., competitors) might miss.

And yeah, it's Vegas—a prospect that's hard to pass up, particularly during a season when many other parts of the continent are scraping snow and ice around. Not a bad way to spend a few days in February.

If there's one thing that should accompany a new year, it's optimism. Yes, 2020 has its uncertainties, but that caveat can apply to most any hour of any day. For every aspect of life we can control or at least influence, there are infinite others we cannot. All we can do is be aware, be informed, and do good work—same as it's always been.

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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.*

## Third NDA liveDemolition event!

The National Demolition Association is firing on all cylinders and member benefits are at an all-time high. In 2019, our NDA Safety App was continuously updated with added content and greater usability and now has over 70 Safety Talks and features JHA. In addition, we launched our new website that features NDA's Grassroots Action Center and Procurement Opportunities Portal. The Action Center allows members to contact policymakers and those in federal agencies to educate them on the pressing issues, and the procurement portal allows our members to search available opportunities for federal work. If you are not a member now is the time to join and take advantage of these new benefits including our world-class training and education programming at <https://demolitionassociation.com/>.

The NDA is leading the charge in education and training. In October, we hosted the KHL World Demolition Summit in Boston, Massachusetts, and coincided this meeting with our Fall Leadership Forum. We held a "Foundations of Demolition" training class attended by demolition professionals from Europe. If you have not done so, I encourage you to register for one or all four training courses: Estimating, Project Management, Job Cost Tracking, and Risk Management and obtain your Certificate of Demolition Management. Learn the latest techniques and methods to save you money and ensure your workers safety on the jobsite. Check our website for future dates and locations.

In February, the NDA will be in Austin, Texas, for our Annual Convention. We are proud to announce this will be our third LiveDemo Event. Multiple pieces of heavy equipment will be available for use, testing, and operating. We will have small equipment competitions at the event. For the first time, we will be offering training at the LiveDemo site.

In its second year, the event grew to almost 700 attendees and became an all-day event. The Live DEMOLition Event gives attendees the opportunity to talk to vendors in person about their equipment and test before purchase. It also gives our attendees and vendors an opportunity to connect and build stronger relationships outside of the traditional Expo setting.



In education, we are excited to welcome this year's keynote speaker, Seth Mattison (right). Seth advises many of the world's leading organizations on talent management, leadership, and the future of work. During our keynote address, Seth will be sharing insights on how to manage a team and establish strong leadership roles. Additionally, OSHA is returning to speak on the top ten violations for the demolition industry and on regulatory updates for construction that would apply to demolition.



In 2019, we had more than 1,000 demolition professionals from across the country join us for Demolition Rockies and welcomed 89 exhibitors in the Expo. Don't miss this opportunity to learn the latest demolition techniques, network with suppliers, end-users and general contracts to take your company to the next level.

Register online at <https://demolitionassociation.com/convention>.

### Epiroc Names Helena Hedblom President and CEO

Helena Hedblom is the new President and CEO of Epiroc AB, effective March 1, 2020. She replaces Per Lindberg, who has decided to leave his position after having successfully established Epiroc as a listed company. Hedblom is currently Senior Executive Vice President Mining and Infrastructure and a member of Epiroc Group Management. A member of the Boards of Directors of IPCO AB and the Swedish Association of Mines, Mineral, and Metal Producers (Svemin), she holds a Master of Science degree in Material Technology from Sweden's Royal Institute of Technology. "Helena has a strong business focus, an in-depth knowledge of the business, and is an appreciated leader who is living and breathing the Epiroc values," Epiroc Chairman Ronnie Leten said in a statement.

[www.epirocgroup.com](http://www.epirocgroup.com)



### GRX Multi-Jaw Demolition Tool Wins 2019 World Demolition Summit Award

The Genesis GRX Razer X multi jaw demolition tool was presented with the 2019 World Demolition Summit Award for Innovative Tools and Attachments. This award recognizes an innovative approach in the design and engineering of new mobile tools of all types that have been tailored to meet the specific requirements of the demolition and recycling industries. The GRX enables excavator operators to change jaw sets in less than two minutes, without leaving the cab. The attachment body contains hydraulically actuated pins that connect to the cylinder and jaw set. This enables the operator to change jaws without assistance, making changes faster and safer.

[www.genesisattachments.com](http://www.genesisattachments.com)



**Genesis Razer X multi jaw demolition tool.**

### Brokk Upgrades Parts Warehouse to Ensure Fast Service

Brokk enhances customer service and parts availability with upgrades to the parts warehouse at its headquarters in Monroe, Washington. The new facility houses an array of standard and specialty parts for all Brokk models — from the compact .6-ton Brokk 70 to the heavy-duty 11-ton 8005 — as well as older Brokk models. The facility also provides parts for Hydrodemolition robots and accessories from Aquajet, a Brokk subsidiary. In combination with the other parts and service centers in St. Joseph, Missouri, and Stanhope, New Jersey, the new warehouse ensures fast, reliable support for Brokk and Aquajet customers across North America.

"A company solely focused on the initial sale that fails to provide the support its customers need, quickly finds itself with fewer customers," said Lars Lindgren, president of Brokk Inc. "Our team has been working hard to build Brokk and Aquajet's presence in North America. But we know it's the customer support that comes after that builds true partnerships. So, we're continually working to streamline our process, increase our inventory and decrease lead times for parts and service."

Optimized logistics allow for faster parts processing through the new warehouse. Most orders placed by 3:45 p.m. for in-stock parts are available overnight to customers across the country, minimizing unscheduled downtime. Spare parts packages tailor-made for individual Brokk machines are also available by request. A kit that travels with the machine ensures operators have the right spare parts at all times, reducing downtime.

In addition to swift delivery, experienced Brokk technicians are available by phone at 1-800-621-7856 to help customers quickly get the parts they need. Brokk team members can identify issues, recommend required parts and process the order over the phone, in most cases, significantly reducing downtime for customers in the field.

"We are constantly evaluating what we can do to minimize downtime for our customers," Lindgren said. "Brokk machines are built to operate in the harshest conditions, but they're not indestructible. When unexpected downtime occurs, we know every minute counts. That's why our knowledgeable technicians are just a phone call away, ready to get the right part out the door and on its way quickly."

[www.brokk.com](http://www.brokk.com)





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## Event Calendar

### World of Concrete 2020

Feb 4-7, 2020  
Las Vegas Convention Center, Las Vegas, USA  
[www.worldofconcrete.com](http://www.worldofconcrete.com)

### Demolition Austin 2020 National Demolition Association Convention

Feb 22-25, 2020  
Fairmont Hotel, Austin, Texas  
[demolitionassociation.com](http://demolitionassociation.com)

### Conexpo-Con/Agg 2020

March 10-14, 2020  
Las Vegas Convention Center, Las Vegas, USA  
[www.conexpoconagg.com](http://www.conexpoconagg.com)

### IACDS Annual Meeting & Bebossa Show

March, 2020  
Willingen, Germany  
[www.bebosa.com](http://www.bebosa.com)  
[www.iacds.org](http://www.iacds.org)

### ISRI 2020

April 25-30, 2020  
Mandalay Bay, Las Vegas, USA  
[www.isri2020.com](http://www.isri2020.com)

### CSDA 2020 Convention & Tech Fair

March 10-14, 2020  
Carlsbad, Ca, USA  
[www.csd.org](http://www.csd.org)

### Samoter 2020

March 21-25, 2020  
Verona, Italy  
[www.samoter.it](http://www.samoter.it)

### Concrete Show Brazil 20

Aug 14-16, 2020  
São Paulo Expo, São Paul, Brazil  
[www.concreteshow.com.br](http://www.concreteshow.com.br)

### DEMCON 2020

September 20-21, 2020  
InfraCity, Bredden, Stockholm, Sweden  
[www.demcon.se](http://www.demcon.se)

### Bauma China 2020

Nov 24-26, 2020  
Shanghai, China  
[www.baumachina.com](http://www.baumachina.com)

### Demtech, India 2020

November 2020  
Bangalore, India  
[www.demtech.in](http://www.demtech.in)



# Rubble Master Sets the Course for Its Future Growth

A great deal has been happening at Austria's Rubble Master recently which has now grown into the RM Group. The expansion of RM's headquarters is a milestone in the company's development with a newly installed management team set to drive the company forward. In 2018, RM recorded the most successful year in the company's history to date, with 2019 set to see the continuation of this successful course.

"The ongoing further development of our entire product range and the spirit of innovation experienced in our company ensure a sound order intake and play a decisive role in our results," says CEO and founder Gerald Hanisch.

Adds CFO Günther Weissenberger, "Worldwide demand for RM has increased again, and the integration of Maximus into the RM Group has also been highly successful."

In addition to extending its product range, RM's success lies in its unique corporate culture, its internal innovation processes and the members of the RM Family. The

company has brought in a new level of management in order to remain a leading pioneer in the industry and set new standards in the future.

"RM is preparing for the future preparations for further growth," confirms operations manager Manfred Nowak, who is now responsible for production, purchasing, supply chain, warehousing, and IT. Likewise Christian Spicker, chief sales officer, brings many years' experience to his position. "RM is a company with clear values that are immediately apparent," he says, adding that young people hold the key to the future. "As an innovative and exciting employer, we want to be a link to educational institutions, universities and technical colleges."

Markus Gaggl, chief technology officer, has a passion for the industry in which RM operates and understands how the market is changing and what is needed. Gaggl, who returned to the company this year, is now responsible for product management, engineering, innovation management, and

digital services that, he says, will "provide our customers with the highest flexibility in future we will focus even more on the configurability of our products."

Julia Aschenwald, head of administration, is also enthusiastic about the RM Family. "Despite consistent growth, RM never loses touch with people," she says. Apart from her passion for numbers, loyalty to the company is one of her priorities. Since graduating from Steyr University, Julia was head of accounting company for five years and is now responsible for all RM's administration.

### Expanding production in Linz

Another important step in the company's expansion strategy has been extending the headquarters at Linz-Pichling, Austria. "RM will expand the location step by step over the next few years according to the master plan that we have developed," says Weissenberger.

[www.rubblemaster.com](http://www.rubblemaster.com)

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## TRS Mobile Metal Separation for Recyclers

Recyclers are increasingly using mobile metal separation systems with ferrous and non-ferrous metals being separated on location by such equipment. As a result of more stringent recycling legislation and measures such as banning the export of waste to China or restrictions on the application of certain recycling streams, companies are constantly upgrading their recycling methods.

"That means that sometimes you need to go to places that are hard to reach. And you have to recover the added value locally, in this particular case the non-ferrous metals," said Jörgen Sassen, general manager of Steelage Czech Republic, an important service provider for the steel industry.

TRS BV Metal Recovery Solutions specializes in equipment to handle these needs. This year, for example, Steelage Czech Republic purchased a Caterpillar mobile eddy current separator with integrated custom-made magnetic separator developed and delivered in consultation with TRS BV.

With this mobile metal separator, Steelage is now extracting additional ferrous and non-ferrous metals from materials which otherwise never would be processed. These flows are released from various recycling processes and are temporarily stored on site and then further processed locally periodically.



### Mobile machines

In general, there are many types of mobile separation machines, such as mobile conveyor belts, crushers, shredders, sieves, hand sorting booths, wind shifters, and now various mobile eddy current separators that take care of the total process. To benefit from such equipment, TRS developed a robust, user-friendly machine, suitable for more difficult recycling streams such as incinerator bottom ash. The machine ensures that the incoming recycling flow is first distributed as optimally as possible. The ferrous metal is then separated by a magnetic roller and discharged via a conveyor belt. The material flow is then prepared for separating of non-ferrous metals, which fall directly from the metal discharge side into a container for further processing. The remaining recycling flow is neatly deposited in a pile through a discharge conveyor belt.

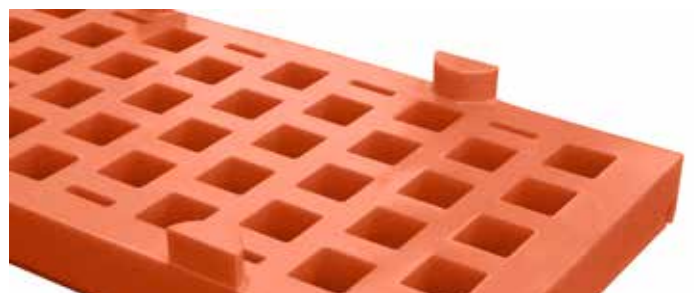
### Durex Products Launches New Products at Conexpo-Con/Agg

Durex Products Inc., will display its multiple screen media solutions for wet and dry applications in booth C31719 in the Central Hall at Conexpo-Con/Agg 2020, March 10-14, in Las Vegas. Durex offers a number of innovative screen media options, allowing customers to fine-tune their production to increase tons per hour while keeping products in spec and lowering their operating costs.

New for the show will be Durex's lineup of modular urethane screen panels and urethane accessories available for snap-in, pin-style, and bolt-in systems. Durex modular urethane panels feature tapered openings that are wider at the bottom. This advanced design reduces plugging and increases throughput. Urethane accessories include magnetic liners for screen boxes, crusher mainframes, feed boxes, chutes, flumes, discharge openings,

and ready-mix concrete plant and truck liners. Durex Products Inc. has offered the company's premium wire and polyurethane screen media technologies since 1965. Other product lines include: Livewire® Screens – A hybrid-type screen, featuring molded rubber strips that hold its high-strength wires in place, providing better screening action and greater open area. Armor® Screens – A combination of high-grade woven-wire cloth with molded polyurethane coating, designed to increase throughput, as it reduces plugging and noise. Accuslot® Wire Screens – Helps eliminate plugging and/or blinding, while minimizing the passing of slivers and chips. Vibraspan™ Screens – Available in long-slot triple or five-shoot wire, featuring longitudinal slots for more open area, without sacrificing product size control. Woven Wire Screens – Made of high-quality oil-tempered, stainless, or high-carbon steel.

[www.durexproducts.com](http://www.durexproducts.com)



# W-technology

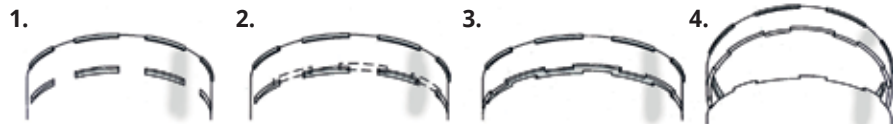
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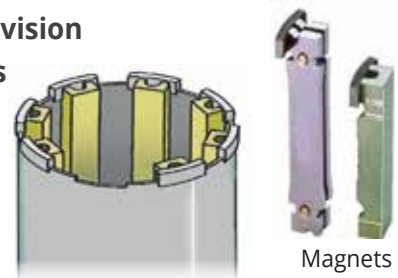
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shows

# World of Concrete, the No. 1 Show Demolition, Concrete Cutting and Concrete Floor Preparation Techni

Even with the show Conexpo-Con/Agg looming on the horizon, World of Concrete 2020 expects to attract a host exhibitors and visitors from the fields of demolition, concrete cutting, and floor preparation.

World of Concrete 2020, probably the most important annual global show for the demolition, concrete sawing and drilling, concrete floor grinding, and polishing industries is fast approaching. Manufacturers and visitors from all over the world are set to gather in Las Vegas in February with PDA Magazine as per usual exhibiting in the Central Hall and providing coverage of the show.

## 10 years of growth

The 2020 edition of World of Concrete marks the 45th edition of this amazing show. During the last decade, the show has rebounded from the recession doldrums to achieve near-record participation in 2019. Even with the Associated Equipment Manufacturers' mammoth Conexpo-Con/Agg show set for the same venue just six weeks later, World of Concrete expects to attract more than 50,000 attendees. The show has already registered 1,500 exhibitors, according to organizers.

World of Concrete is undoubtedly a global arena in terms of both exhibiting companies and visitors, with a large number of manufacturers from all over the world set to exhibit, particularly from the USA, Europe, China, and Japan. All the major names in light and medium demolition equipment such as hydrodemolition, concrete sawing and drilling, dust extraction, concrete floor preparation, and polishing





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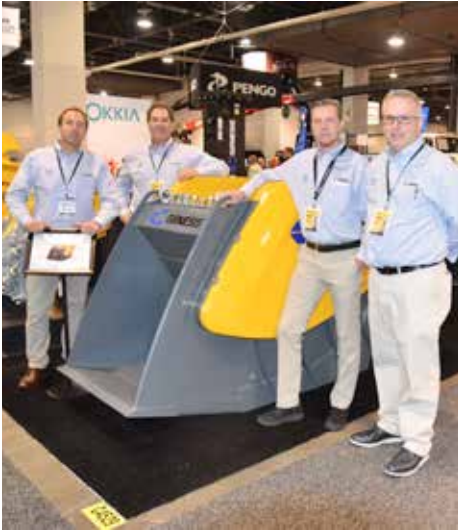
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**Selected Exhibitor List As of 12/9/2019**

<b>Exhibitor Name</b>	<b>Booth#</b>
AmeriPolish, Inc	040835
Aquajet Systems AB	C4547
Ashine Diamond Tool Co. Ltd.	S11706
Atlantic Diamond Tools Inc	S11915
AUSA Corporation	C5685
Avant Tecno USA	C6877
Aztec Products Inc.	040843
BlastPro Mfg.	S11526
Blastrac	S10314
Blount Inc.	031174
Bobcat Company	C5377
Brokk Inc	C4547
Brokk Inc	C4547a
Brokk Inc	C4547b
Buffalo Turbine	S13355
Caterpillar Inc	C5961
CLEARBLAST	030870
Concrete Polishing Solutions	040827
Conjet AB	C4611
Connect Work Tools/Oil Quick USA	031660
CS Unitec Inc	031365
CSDA	C4433
DDM Concut Diamond Tools	C3539
DDM Concut Diamond Tools	C4439
Decorative Concrete Council & Concrete Polishing Council	040537
DEUTZ Corp	N1837
DeWalt	030166
Diamond Blade Warehouse	S11413
Diamond Products	C4880
Diamond Products	032170
Diamond Products	032170a
Diamond Speed Products, Inc.	S13319
Diamond Tools International/Golz	S12439
Diamond Vantage	C3541
Diamond Vantage	031552
Digga North America, LLC	C6077
DITEQ Corporation	C4802
DITEQ Corporation	031864
DMITTOOLS.com	031569
Dongying Jiangxin Grinding Tool	S12119
Doosan Infracore North America	C5577
Dustcontrol	S12253
Dustless Blasting	S12913
Dustless Technologies	S12551
Eagle Industries	S12215
Epiroc USA LLC	C7291
Ergodyne	CE510
E-Z Drill Inc	C4155
Fujian Xingyi Polishing Machine	031164
Fuzhou Bontai Diamond Tools	S11618
Geith	C4102
GelMaxx	S11020
Genesis Attachments	C4529
Gensco Equipment	N2923
Global Polishing Solutions	040859
Global Polishing Solutions	S10515
Graco Inc	040312
Graco Inc.	S11751
Hatz Diesel of North America, Inc.	C4043
Hilti	030699
Hilti	030700
Hilti, Inc.	C4840
Husqvarna Construction Products	C4249
Husqvarna Construction Products	031611
International Grooving & Grinding	C4328
Jetstream of Houston LLP	S13339
JK (Thai) Diamond Tools Co., LTD	C4964
Jon-Don Inc.	031246
K2 Sanders	S13245
Kenwood USA	N1345
KLINDEX AMERICA	040639
Lackmond LLC	C4561
Lackmond LLC	C4563
Lackmond LLC	C4565
Lackmond LLC	031362
Layher Inc.	C3315
Liebherr USA, Co.	C5677
LISSMAC Corporation	031348
Liugong North America	C7027
Makinex USA LLC	S13519
MB Crusher America, Inc.	030230
Multiquip Inc	C4537
National Flooring Equipment	S11115
New Grind Inc	031334

Norton Clipper Construction Products	C4641
NOVA DIATOOLS CO.	S12757
Novatek Corporation	S12939
ONFLOOR Technologies, LLC	S13632
OTTO BAIER GmbH	030358
PDI Magazine	C4224
Pearl Abrasive	S10248
Power Curbers & Power Pavers	C5611
Power Pusher, Div. of Nu-Star, Inc.	S12651
POWERTRACK INTERNATIONAL LLC	C7467
PR Diamond Products, Inc.	N2349
Proline Decorative Concrete Products	040941
Proline Decorative Concrete Products	S12239
Robert Bosch Tool Corporation	030200b
Runyon Surface Prep Rental & Supply	S12339
SANY America Inc.	C7013
SASE Company, LLC	041035
Scanmaskin	031918
Scanmaskin	S11639
Stihl Inc	C4631
Sunbelt Rentals	S10348
Superabrasive, Inc.	030840
Superabrasive, Inc.	031034
Superabrasive, Inc.	S10539
Syntec Diamond Tools	S13613
Sysdyne Technologies	N2171
Terrco, Inc.	032140
Texas Diamond Tools, Inc.	C3316
Texas Pneumatic Tools Inc	S13100
TITAN DIAMOND USA	S13256
TM Floor System	031044
Tru-Cut Inc.	S12954
US Saws	040949
US Saws	S11207
US Shotblast Parts & Service Corp	S12238
Wacker Neuson Corporation	C6383
Water Treatment Solutions	N337
WerkMaster	S12126
World Diamond Source Inc	S10901
World Diamond Source Inc	S10905
Wuhan Wanbang Laser Diamond T.	C4864
Wuxi Tongsheng Diamond Tools	S12214
Xiamen M&R Diamond Tools	S12216
Xiamen Metool Diamond Tools	S11613
Xi'an Xing Hui Diamond Carbide T.	S11345
Xtreme Engineered Floor Systems	S13407
Zhengzhou Sinoblade Industrial	S11339
ZipWall	S12610
Zurn Industries, LLC	S12617

**2020 WOC Education Program Hours**

**Monday (Feb. 3 –Pre-show Education all day)**

3-Hour Seminars:	8:00 am - 11:00 am; 1:00 pm - 4:00 pm
4-Hour Certification Seminars	8:00 am - 12:00 pm; 1:00 pm - 5:00 pm
90-Minute Seminars	8:30 am - 10:00 am; 10:30 am - 12:00 pm; 1:30 pm - 3:00 pm; 3:30 pm - 5:00 pm

**Tuesday – Thursday (Feb. 4-6)**

3-Hour Seminars	8:00 am - 11:00 am
4-Hour Certification Seminars	8:00 am - 12:00 pm; 12:00 pm - 4:00 pm; 1:00 pm - 6:00 pm
90-Minute Seminars	8:30 am - 10:00 am; 1:30 pm - 3:00 pm

**Friday, February 7**

3-Hour Seminars	8:00 am - 11:00 am
90-Minute Seminars	8:30 am - 10:00 am

**EXHIBIT HALL HOURS:**

Tuesday-Thursday (Feb. 4-6)	9:30 am -5:00 pm
Friday (Feb. 7)	9:00 am - 12:00 pm

**2020 Pricing**

Exhibits-Only (EO)	\$95 online; \$105 onsite
Exhibits-Only Spouse (EO)	\$95 online; \$105 onsite
Shuttle Bus (SB) (If NOT booking hotel through WOC Housing)	\$45

**SEMINAR FEES**

3-Hour Seminars	\$190
90-Minute Seminars	\$145
4-Hour Certification Seminars	\$245

**SUPER PASS PACKAGES**

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Super Pass 1 (SP1)	\$625
Super Pass 2 (SP2)	\$625
Super Pass 3 (SP3)	\$725
Super Pass Residential (SPR)	\$725





equipment will be there, as well as a few newcomers.

**Good times in the US**

The positive market outlook in the US means that manufacturers in the above sectors want to target the US building and construction industry which has shown impressive growth. Major

investment packages have been launched, primarily in terms of improving infrastructure in such areas as roads and bridges that have been neglected for many years. Commercial, residential, and industrial construction is also in good shape in most parts of the country. This development has also created new jobs in large parts of the US, although demand for skilled trade workers remains high. That makes learning about the latest productivity benefits in the concrete fields more important than ever.

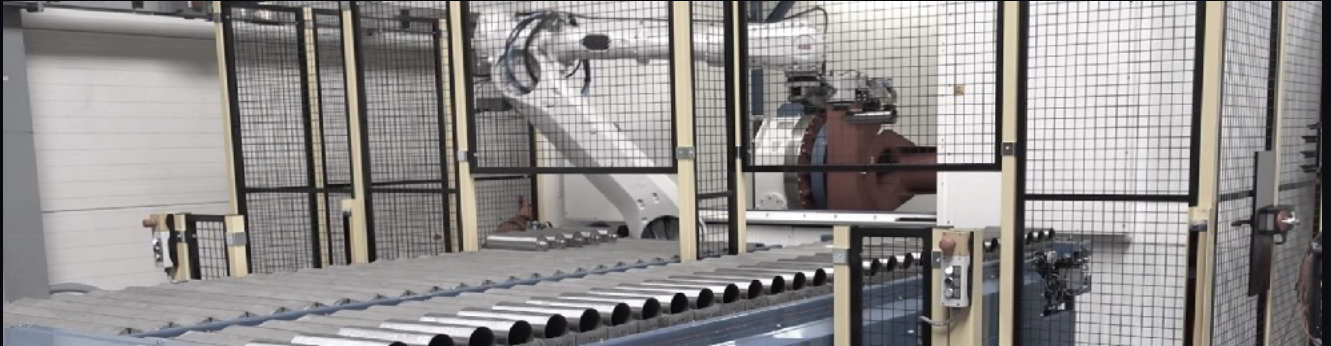
On the following page you will find a selected list of exhibitors within the sectors covered by PDA magazine. We hope to see you in Vegas at Central Hall Booth 4224.

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[www.meijertools.nl](http://www.meijertools.nl)



# Aquajet's Ergo System Redefines Industrial Cleaning Applications

Aquajet Systems offers the Ergo System as a revolutionary alternative in industrial cleaning applications. The Ergo Controller offers four times the power of a hand lance in a compact, wireless unit. It provides the maneuverability and power to keep workers out of harm's way during hazardous cleaning applications in oil, gas, petrochemical, refractory, nuclear and other industries. Using a number of productivity-enhancing attachments, contractors can remotely operate the Ergo System for efficient cleaning and removal of material in boilers, tanks, pipes and other industrial containers and conduits. Aquajet will highlight the Ergo System, along with other innovations, at booth C4547 during World of Concrete, February 3-7, 2020, in Las Vegas.

The Ergo System incorporates the controller unit, which powers and controls the hydraulics; the Ergo Power Head, which manipulates the high pressure lance; and either the spine or the climber, which are unique systems used to support and maneuver the power head, based on project needs. The climber attaches to any standard scaffolding or pipes and robotically moves along it to deliver powerful hydrodemolition forces for removal of materials such as paint, rubber coatings, petroleum products, rust and decayed concrete in a number of vertical vessels.

The Ergo System also works with any of three attachments in the Ergo Rotolance series for improved capabilities in confined or hard to reach places. The Ergo Rotolance 30, 130, and 130s work at pressure range of 1,450 - 43,500 psi (100 - 3,000 bar) and offer a variety of nozzle configurations for a spray pattern diameter from 1.2 in to 5.1 in (30mm to 130mm). The system exerts an impressive 737.5 lbf (1,000 N) of reaction force, as much as four times greater than a human operator with a hand lance. This means the machine can effectively clean and remove concrete, rubber coatings, paint, rust, plastic and other materials as well as roughen



surfaces for better bonding faster than traditional methods, making it ideal for resurfacing applications in tanks, reservoirs, and other containers.

Hydrodemolition robots, such as the Ergo System, remove decayed concrete and built-up materials to a preset depth consistently. Alternatively, a hand lance will likely leave inconsistent depths due to being held by an operator. This means contractors may have to do another pass to completely remove materials or risk damaging underlying surfaces by being too aggressive. Contractors can easily move the 271-lb (123kg) Ergo Controller unit around the facility or worksite and over soft or rough surfaces, due to the wide wheels and low ground pressure.

Additionally, the system is service friendly with hydraulic hose multi connectors that are 100% sealed from moisture to virtually eliminate the risk of leaks during transport. The Ergo System requires a high-pressure pump and electric power supply to operate. Aquajet's self-contained Power Pack features a high-pressure Hammelmann pump, diesel engine and an integrated control system in a compact container, making it ideal for busy industrial facilities.

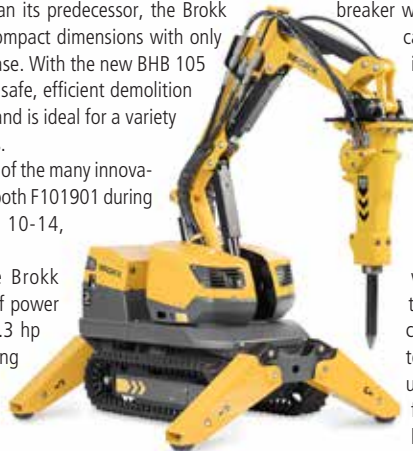
[www.brokk.com](http://www.brokk.com)

## Brokk 70 Offers More Power for Confined Spaces

Brokk offers the Brokk 70. Armed with SmartPower — the company's signature intelligent power management system — the smallest electric robot in the Brokk range offers 100% more power than its predecessor, the Brokk 60 II, yet retains the same compact dimensions with only a 133-lb (60kg) weight increase. With the new BHB 105 breaker, the Brokk 70 brings safe, efficient demolition to the most confined spaces and is ideal for a variety of applications and industries.

The Brokk 70 will be one of the many innovations Brokk will highlight at booth F101901 during Conexpo-Con/Agg, March 10-14, 2020, in Las Vegas.

With SmartPower, the Brokk 70 boasts 13.1 hp (9.8kw) of power with a hydraulic output of 7.3 hp (5.5kW), while still maintaining the Brokk 60 II's compact size and 16-amp fuse. At just 35 in (88mm) tall and 23.5 in (597mm) wide, the Brokk 70 fits through narrow doorways and into tight spaces, making it ideal for interior demolition applications. And with a base weight of just 1,235 lb (560kg), it can be transported on an ordinary passenger elevator, making it ideal for top-down demolition projects in urban areas. As with all Brokk machines, the Brokk 70 offers superior reach and movement.



The three-part arm extends to 10.5 ft (3.2m) vertically and 8.8 ft (2.7m) horizontally.

Brokk outfits each Brokk 70 with a BHB 105 hydraulic breaker with 117 lbf (159 J) of hitting power. It can be equipped with advanced features, including water spray to suppress dust and air cooling for hot environments. The machine also pairs seamlessly with concrete crushers, drum cutters, grapples, scoop buckets and more.

The Brokk 70 incorporates the revolutionary new three-feature Smart-Concept™ system. SmartPower senses when the power supply is poor or faulty then compensates before damage to components occurs, allowing contractors to use the machine with generators or unreliable power sources. With 70% fewer cables, rugged components, LED headlights and easily accessible grease points and hydraulic hoses, SmartDesign extends machine life and provides unprecedented ease of maintenance. SmartRemote, an ergonomic remote control incorporates adjustable straps, intuitive controls and professional-grade radio technology with almost 1,000 ft (300m) of wireless working range.

[www.brokk.com](http://www.brokk.com)

## DARDA Expands Multi Cutter Portfolio

After Darda's new Multi Cutter MC300 was presented to the public at Bauma 2019, the manufacturer of environmentally friendly, hydraulic demolition equipment showed the new Multi Tool in a live test at the RecyclingAKTIV in Karlsruhe, Germany. Based on its little brother MC200, the MC300 weighs 639 lb (290kg) and comes with a hefty cutting force of 60 tons. With an opening width of 13.8 in (350mm), the Darda Multi Cutter MC300 offers maximum productivity for use with carriers from 2.5t to 9 tons. And in combination with a remote-controlled Brokk demolition robot B200 or B300, it becomes even more effective.

Darda Multi Cutters generally stand for safe and efficient cutting of profiles, utility lines and cables in a variety of industries, including demolition, gutting, construction, recycling, and nuclear industry. In construction, for example, entire industrial halls and production facilities are cleared of pipes, steel girders, and ventilation shafts, while heaps of cables are cut into small pieces. The materials are sorted in preparation of the subsequent demolition work. In recycling yards, plastic pipes, high-voltage cables, deep-sea cables, and a great deal of scrap, are cut. The Multi Cutters from Darda are used for everything from car recycling to the separation of car tires and rims. And if you need to use them under water, that is no problem either. Nevertheless, the Multi Cutter is particularly popular with contractors when used for internal coring.

"Its slim design and maneuverability make our Multi Cutter an economical cutting tool for small carriers, even when working in difficult to access places," says Darda Sales Manager Andreas Ruf. "Regrindable and replaceable cutting blades guaranty easy maintenance and low wear costs."

[www.darda.com](http://www.darda.com)



## General Equipment Company Introduces TEMP-BUST-R? Ventilation Fan

General Equipment Company has expanded its line of ventilation products with the new EP30 TEMP-BUST-R? ventilation fan. Featuring heavy-duty construction, the EP30 is ideal for a variety of ventilation and climate control applications, including industrial use, trench construction, general construction, heating and cooling, general demolition, oil and gas, and other demanding work environments. It can help enhance worker productivity by improving the jobsite climate, or it can also be used for blowing dust, fumes and other contaminants out of non-hazardous work areas. Producing up to 13,000 cfm (22,087 cmh), the EP30 TEMP-BUST-R has a 1.5-hp (1.1kW) electric single-speed motor and a six-blade propeller made from reinforced composite material. The frame is constructed of heavy-gauge steel tubing, which is welded into one continuous structure to minimize damage from typical jobsite abuse. The two-section fan enclosure meets UL and CE requirements. Integral lifting bails are provided for easy loading and unloading of the 145-lb (65.8kg) EP30. The unit also contains large, 8-in (203mm) diameter composite wheels with high-strength



polymer hubs and bearings for easy pulling and greater control, even when rolling over jobsite debris. A manually activated, fully adjustable braking system helps keep the unit properly positioned during operation.

[www.generalequip.com](http://www.generalequip.com)

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# A True Game-Changer for PIPE CUTTING

Everybody working within cutting concrete knows how heavy and time-consuming pipe cutting is. Two years ago, Paddy Brosnan, founder and director of Sydney, Australia, concrete cutting firm, Extreme Cut Services, was driving home from work and noticed hundreds of pipes by the side of the road where a new major road and sewer line was being constructed. Having cut this type of pipe before, he knew how labor-intensive it would be for someone stuck in the trenches cutting these pipes. He also knew a lot of people in the industry who had back injuries and lacerations from handsaws which is the traditional way of cutting pipes. He imagined there had to be a safer, quicker, and easier way to cut pipes, particularly angles.

## A two-year design journey

Brosnan couldn't drop the idea that there had to be a way of developing a safer, more efficient, automated and environmentally friendly way of cutting pipes. He started to do a lot of research to see what was already available and what demand there might be for something new. A two-year journey began which saw the design and build of a working multi angle internal pipe saw prototype. In early November 2019 Brosnan's patent application number came through, so now he can safely raise awareness about the new device and hope to receive interest in the features and benefits of his new saw.

"It's been a long time since I've seen innovation and automation in terms of pipe cutting," Brosnan says. "I have used my 40 years of experience in mechanical engineering, as well as cutting and drilling, to produce a saw that provides tangible benefits for operators and project outcomes including increased safety, speed and



A 15° pipe cut.



"This multi angle internal pipe saw is set to change the way pipes are cut," says inventor Paddy Brosnan.

accuracy. The unique feature of my new internal pipe saw is its ability to cut pipes at any angle up to 45o. It is also highly versatile. By fitting different diamond blades, it can cut concrete, steel, ductile iron and refractory lined pipes. This is a real game-changer."

The internal pipe saw can be used in a variety of applications making it a highly attractive proposition for an equipment manufacturer. The potential industries for its use include civil contractors, pipe layers, pipe manufacturers, piling demolition companies, concrete cutting companies, equipment rental companies and others.

## Many advantages

To date, Brosnan has performed numerous successful tests on his new saw and has identified numerous features and benefits, which include operation directly leading to a reduction in injuries and toxic dust / mist exposure which reduces long term health issues and minimizes liability for companies. The saw cuts multi angles up to 45o, cut pipes with diameters from 35.4 in (900mm) up to 10.5 ft (3.2m). By fitting different diamond blades, it can cut concrete, steel, ductile iron, and refractory lined pipes. It is also less labor-intensive than handsaws, cutting pipes in just one set up with no need to turn or reposition the pipe. Other attributes include a clean and accurate first time cut which results in less time spent cutting and is able to cut submarine pipes and hollow piles below the silt line. The transportable modular system can fit through a 23.6 in (600mm) manhole with a plasma cutter that can be fitted for cutting metal pipes.

Brosnan believes that this new pipe cutting method and system could go into production, although to go



Nice and smooth with very little waste.

into manufacturing himself he thinks is rather farfetched. Instead he is seeking expressions of interest from equipment manufacturers around the world looking to acquire a new and innovative prototype, designed to fill a gap in the pipe cutting market.

[www.extremecutservices.com.au](http://www.extremecutservices.com.au)



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# Latest in Suppression



## Emi Controls

EmiControls has introduced the V12 dust controller, an efficient solution for both problems. Perfectly illustrating its attributes and benefits has been a development project in Bolzano in northern Italy, where an entire district is being redeveloped. As the area is located directly next to the old town center and the main square, the work needs to be carried out with as little dust and noise as possible. The construction company responsible for the work used a V7 and the new V12 from EmiControls as part of the demolition operation. The dust controllers proved especially beneficial in the hot summer months, keeping dust to a minimum, leading to no complaints from local residents.

The V12 is particularly quiet with a noise emission of

60dB within a radius of 65.6 ft (20m). The turbine operates at two speed levels, giving it flexibility to expand fine water mist up to more than 200 ft (65m). Thanks to the valve technology, the amount of water can be regulated via remote control on three levels which enables the user to design the spray pattern flexibly and adapt it to the respective requirements. Low energy consumption does not sacrifice performance or throwing distance, which is mainly due to the aerodynamic position of the turbine blades. The machine itself and the individual components have a long lifespan and due to its small size, the V12 can be easily transported and positioned.

[www.emicontrols.com](http://www.emicontrols.com)



# Dust ion

Dust suppression is one way to combat the hazard of dust spreading in a workplace. PDA takes a look at some of this year's latest developments.



## WLP

WLP's Demolitor 70 has a dry total weight of 1,323 lb (600kg), installed power of 14.75 hp (11kW), an IP55 protection rating, and 32A 400V power supply. It also features a 360-degree rotation, an elevation of -10/+40 degrees, and a minimum pressure of 7.25 psi (0.5 bar).

[www.wlpdust.com](http://www.wlpdust.com)





**New compact model from Generac Mobile**

Generac Mobile has recently introduced a new compact Dustfighter DF 4500. This new model fits between the company's mini models, suitable for use on small sites, and its midi models designed for construction sites, quarries and other medium-sized work areas. (Generac Mobile's largest models can be found at large mining plants and quarries.)

The DF 4500 is compact so that it can be positioned anywhere and operated by a single operator and at the same time is able to produce a sufficient flow of nebulized water to cover considerable distances. DF 4500 reaches more than 98 ft (30m). Thanks to a manual/automatic rotation system, it covers an area of nearly 28,000 ft<sup>2</sup> (2,600m<sup>2</sup>). The DF 4500 is also equipped with a manual or electric tilting system to better direct the flow of nebulized water and also comes with a slow speed trailer, an integrated control panel and optional remote control.

[generacmobile.com](http://generacmobile.com)

**Naltec water fog system**

B + W Gesellschaft für Innovative Produkte located in Bottrop, Germany has added to its Naltec range with spray cannons for distances of up to 656 ft (200m). Naltec Spray Cannons generate super-fine floating water droplets at very low energy consumption, with a working pressure of 145 psi (10bar). The fine nebulization makes it possible to economize water consumption, which leads to a decrease in energy and operating costs. Its design results in low maintenance, with its mobile and stationary structure being adaptable to local conditions.

The spray cannons are designed to use powerful fans to create fine water mist that is blown over a long distance. Options for various throwing distances and the amount of water sprayed are available. In windless conditions, throw distances of up to 656 ft (200 m) can be realized. High manufacturing standards and design makes the cannons both robust and powerful, with the basic equipment featuring a fan with a diffuser, a stainless steel nozzle ring, built-in rotary actuator, pump filter, and a controller with dry-run protection. Other accessories include a three-wheel undercarriage, remote control, trailer, water tank, and power generator, all which enables flexible work in any location.

[www.buwip.de](http://www.buwip.de)

**Tera 60 GTM, an "all in one" solution**

Dehaco's Tera 60 GTM is described as the "all in one solution for dust control." It is not dependent on an independent water or electricity supply,



with the unit being equipped with a built-in generator and water tank, although it can be connected to an independent water supply in the field. Developed and designed in house, in cooperation with existing users of the Tera series, the 60 TM can be used to prevent the release of asbestos from burning buildings, control dust at recycling centers, and minimize odors at waste treatment sites. This is due to the unit being designed for preventing dust emissions during demolition, renovation, and recycling operations.

While conventional nozzles require maintenance, as they clog up with lime and dust particles from water, the Tera series feature a revolutionary Demto-Rotor specifically designed with openings that distribute water evenly while preventing the build-up of lime and dust particles. Users can adjust droplet sizes with the push of a button.

The galvanized steel frame of the Tera 60 GTM carries an integrated water tank, located on the underside of the unit and is equipped with baffle plates, ensuring balance when being moved, enhancing the road holding of the towing vehicle. In addition, the top cover of the machine can be disassembled and is therefore accessible at all times. A modified version, the Tera 60 GTX is available without agricultural undercarriage, drawbar, and support legs.

[www.dehaco.nl](http://www.dehaco.nl)

**Trident dust controller from Buffalo Turbine**

Buffalo Turbine's Trident dust controller has three separate turbines all powered by the same Kohler diesel engine, being capable of three times the coverage area of its single turbine dust controllers. The control unit is self-contained, meaning no generator, lower maintenance costs, and less equipment to store. Each turbine uses gyrotory atomizing nozzles which do not clog the way other nozzle tips might do. The Trident can be equipped with one to three oscillation kits for more coverage area.

[www.buffaloturbine.com](http://www.buffaloturbine.com)

**Fogco Dust Suppression Products**

Fogco is pleased to introduce the FogCannon™, the latest product offering designed specifically for commercial and industrial dust suppression, humidification, and cooling.

Fogco's product range includes the highest quality components and state of the art technology. Units include pole-, base-, and trolley-mount, as well as and customized self-sustaining units. Fogco FogCannon™ products control dust at the source by emitting extreme air velocity with large volumes of fine water droplets that physically capture and push dust particles to the ground, completely suppressing it from the air in virtually all conditions. This same technology adds humidity to the environment.

**High Pressure**

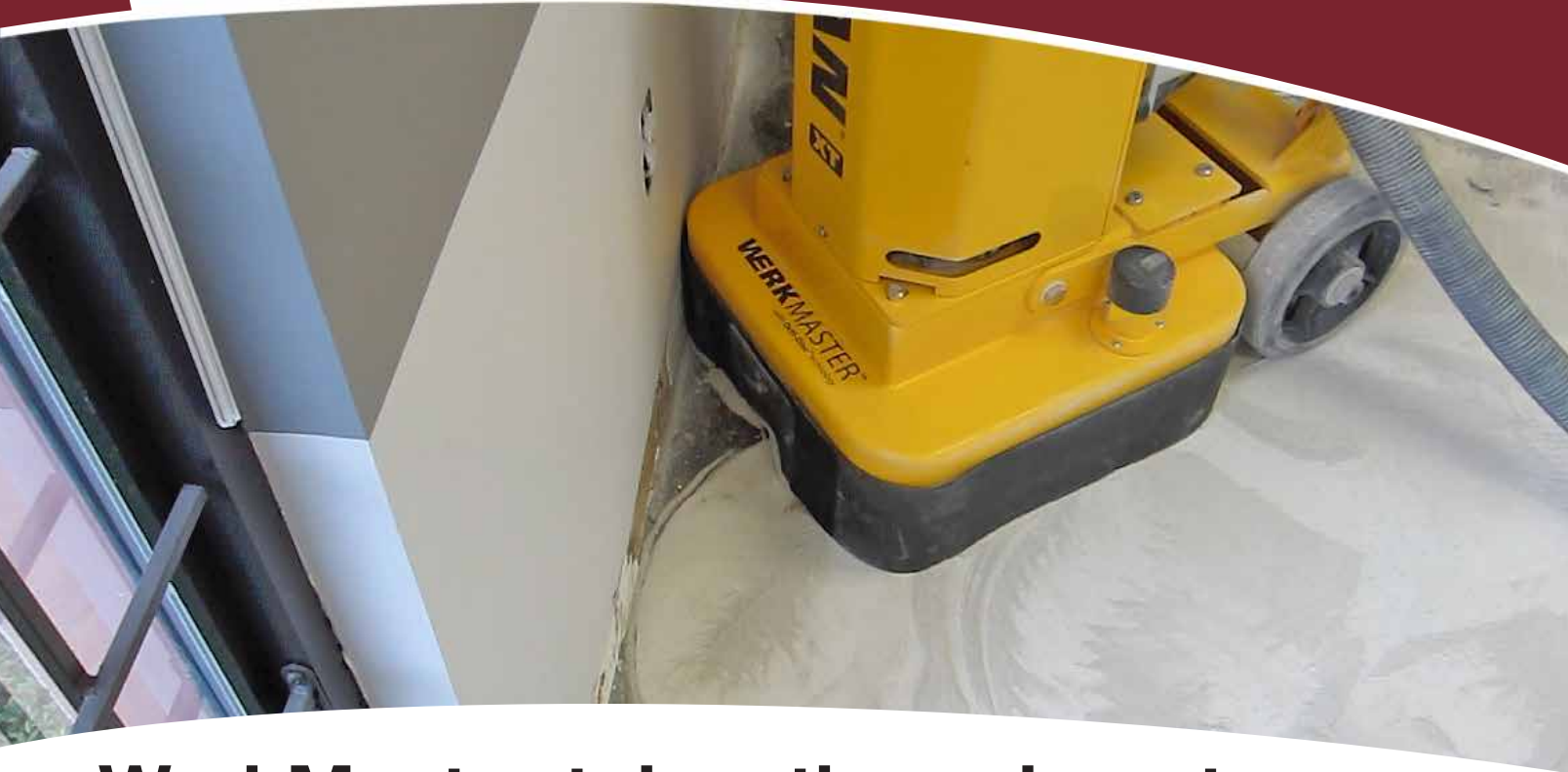
The Fogco FogCannon® HP is a high-pressure fogcannon on a



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[www.werkmaster.com](http://www.werkmaster.com)





portable 3-wheel cart. It is designed for indoor dust control, indoor humidification, and indoor or outdoor cooling.

The unit comes with a .5-gal/min (1.9 liter/min), 1,000-psi (69 bar) high-pressure pump; an 18-in (457mm) fan mounted in a cone shaped cannon with adjustable tilt; a 25-ft (7.5m) power cord; and separate controls for the fan and the pump. A variable speed fan throws fog up to 50 ft (15 m).

**Light Duty**

Small and mobile, the LD line is perfect for smaller indoor and outdoor work zone, such as construction sites, recycling



**Trident dust controllers from Buffalo Turbine.**

plants, waste transfer stations, and scrap yards. Models offer throws from 50 ft to 130 ft (15m to 40m).

**Heavy Duty**

The HD line is the flagship line of the Fogco FogCannon™ range and provides the highest quality heavy duty components and is designed for the harsh environments of large construction sites and demolition projects, mines, ports, quarries, large waste transfer stations, and steel mills. The HD line allows for numerous options including remote operation and completely automated operation.

This line provides the greatest flexibility of throw distance, flow rate, and available options allowing for greater adaptability in all harsh conditions.

**Extreme Duty**

The EX line is the largest platform for the Fogco FogCannons™ and is made for the toughest, most demanding job sites. This range includes all the same quality components and flexibility as the HD line with throw distances up to 500 ft (152m)

The EX units are available with a pole stand mounted on a heavy-duty reinforced steel base. This range provides state-of-the-art technology and an extensive list of options. The highest quality components and the most durable FogCannon product line on the market makes this range the preferred choice for the most extreme applications.

**Custom Duty**

The CD line is the most flexible line allowing any of the Fogco Fogcannon™ products to be trailer mounted and can include an extendable cantilever arm, an independent water source, and an electric generator making the Custom Duty units completely autonomous and self-sustaining.

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# Demolition in Aus

## US National Demolition Association's Convention and Live Demolition Event in Austin, USA is approaching. Only a few weeks left to February 22-25, 2020.

On the following pages you find some important information for your visit to the NDA Convention in Austin, 2020.

### Superintendent Bootcamp Friday, February 21, 8am - 5pm

One day of classroom education targeted at the superintendent, foreman, or site-supervisor level with a second day of a hands-on experience at the Live Demo location. Learn best practices for the full lifecycle of job site management from experienced instructors, Steve Schwartz and Greg Menen. Topics include: planning, communication, people management, safety, and job wrap up.

### Keynote Speaker

#### Sunday, February 23, 9am - 10:30am

Keynote speaker is Seth Mattison, Workforce Strategist and Management Trendspotter. Seth Mattison is an Internationally renowned expert, author and futurist. As Founder and Chief Movement Officer of Luminare Labs, Seth advises many of the world's leading brands and organizations on the key shifts happening around talent management, change and innovation, leadership, and the future of work. His ideas have been featured in such publications as The Wall St. Journal, Forbes, The Huffington Post, and The Globe and Mail and was recently named to the Editors' Picks for Favorite Speakers of the year by MeetingsNet. Over the past decade Seth has shared his insight with thousands of business leaders around the world and has received accolades from many of the worlds' best brands including: MasterCard, Johnson and Johnson, IBM, The Dallas Cowboys, AT&T, PepsiCo, GE Energy, E&Y, Caterpillar, and The Walt Disney Company.

### Reserve your room by January 28, 2020 to secure the NDA discount rate

A towering icon within a vibrant Central Business District, Fairmont Austin is uniquely located amid the lush greenery of Palm Park and Waller Creek and directly connected to the Austin Convention Center. The newly opened 37-story luxury hotel features 1,048 richly appointed guest rooms and suites with picturesque vistas of Lady Bird Lake, a dramatic cityscape and the State Capitol. Guests indulge in exquisite dining, a pampering spa and state-of-the-art meeting facilities. Fairmont Austin engages guests with the city's famed

music scene, as well as the area's celebrated cuisine and diverse artistic lifestyle.

[www.demolitionassociation.com](http://www.demolitionassociation.com)



**Schedule**  
**Friday, February 21**  
 8:00 am - 5:00 pm  
 Pre-Convention Education Course - Demolition Superintendent Bootcamp  
**Saturday, February 22**  
 10:00am-6:30pm Registration Open  
 11:00am-11:30am Committee Meeting  
 11:30am-12:00pm Finance Committee Meeting  
 12:00pm-4:00pm Pre-Convention Education Course Day 2 - Demolition Superintendent Bootcamp - Equipment Maintenance  
 1:00pm-2:00pm Committee Meetings  
 2:00pm-5:00pm 2020 Annual Meeting of the Board  
 5:00pm-6:30pm Welcome Reception  
**Sunday, February 23**  
 8:00am-8:00pm Registration Open  
 8:00am-4:30pm Shuttles to/from offsite Live DEMOLition Event  
 8:30am-3:30pm Safety Presentations Offsite at Live DEMOLition location  
 9:00am-4:30pm Offsite Live DEMOLition Event and Lunch  
 6:15pm Ribbon Cutting Ceremony  
 6:30pm-8:00pm Expo Opening Reception  
**Monday, February 24**  
 8:00am-5:00pm Registration Open  
 8:30am-10:30am Breakfast  
 9:00am-10:30am  
**Keynote Presentation**  
 10:45am-12:15pm Education Session I  
 10:30am-4:00pm Expo Open  
 12:00pm-1:00pm Lunch in Expo  
 2:30pm-4:00pm Education Session II  
 3:00 pm - 4:00 pm Local Brews Beer Reception  
 6:30 pm - 9:30 pm Offsite Evening Party  
**Tuesday, February 25**  
 9:00 am - 2:00 pm Registration Open  
 10:00 am - 1:00 pm Expo Open  
 10:30 am - 11:30 am Education Session III  
 12:00 pm - 1:00 pm Lunch in Expo  
 1:00 pm - 1:30 pm Education Session IV  
 6:00 pm - 8:30 pm Annual NDA Awards Banquet  
*This schedule is tentative and is subject to change.*

## Exhibitors (as of Dec 31/19)

- All American Recycling
- Arden Equipment
- B2W Software, Inc.
- BD Electrical, Inc.
- Benlee, Inc.
- BossTek
- Brokk Inc.
- Buffalo Turbine LLC
- Caterpillar Inc.
- C & C Mfg
- C&DR
- Cohen
- Company Wrench, Ltd.
- Detroit Edge Tool Company
- DITEQ
- Dykon Explosive Demolition Corp
- Demolition & Recycling International
- Earth Services & Abatement
- Ecovolve
- EMSCO - Electric Motor Supply Company
- Epiroc
- Eagle Crusher Company, Inc.
- EMR USA
- FieldFlo
- Genesis Attachments
- GenSCO Equipment, Inc
- Husqvarna
- HKX Inc
- HydraulicCircuit Technology
- INDECO North America
- Interstate Refrigerant Recovery Inc.
- J & J Contracting
- Kinshofer USA
- Kobelco Construction Machinery USA
- KPI-JCI and Astec Mobile Screens
- Liebherr
- LaBounty
- LBX Company LLC
- Midwest Industrial Metals Corp.
- Moley Magnets Inc.
- National Construction Rentals
- National Flooring Equipment
- New Millenium Rentals
- NorthStar Demolition and Remediation
- National E and S Insurance Brokers
- OKADA America, Inc.
- OilQuick USA
- Pemberton
- PowerTrac Machinery
- Professional Demolition Americas
- Ramco Construction Tools, Inc.
- RockWheel
- Ruckus
- Sennebogen, LLC
- Shred-Tech
- ShearCore BladeCore
- Sierra Intl Recycling & Demolition Inc.
- Steelwrist Inc.
- Superior Tire & Rubber Corp
- Setco Solid Tire & Rim
- Switch Rail
- Thalheimer Brothers
- Thornton Tomasetti
- Volunteer Equipment & Supply
- Vacuworx
- Volvo Construction Equipment NA, Inc.
- Winkle Industries
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# Workforce Woes

## Maintain Productivity Amid a Skilled Worker Shortage with Compact Hydrodemolition Robots

by Keith Armishaw, Business Development Manager – North America, Aquajet Systems

According to the Associated General Contractors of America, what keeps contractors up at night is the availability — or more accurately, the lack — of skilled labor. In fact, 82% of firms expect it will remain difficult to hire qualified workers in the coming months due to older workers leaving the profession during recession years and younger workers seeking less labor-intensive jobs. In addition, the world construction market is projected to grow 85% by 2030, adding stress to an industry already struggling to keep up with demand. The circumstances for concrete repair contractors are particularly challenging. In 2018, the Portland Cement Association predicted cement consumption will grow from an estimated 109.5 million tons in 2018 to 116.9 million tons by 2020 due to an anticipated increase in infrastructure spending, all while the skilled labor force continues to dwindle. To add to the dilemma, contemporary concrete demolition methods are not exactly scalable; the only way to increase output is with more workers. Many concrete repair contractors rely on manual concrete removal methods, such as pneumatic paving breakers or hand lances that use a high-pressure water jet.

Though widely used, hand lances do little to advance concrete contractors' goals of improving productivity to match growing demand. The tools, inherently saddled with issues of fatigue and injury, drive up workman's compensation costs. And due to design limitations, hand lances provide limited value in terms of power, precision, and productivity. Many concrete repair contractors are turning to remote-controlled hydrodemolition robots to improve workforce utilization and jobsite productivity. These machines allow workers to stand at a safe distance and monitor the equipment, reducing operator fatigue while simultaneously increasing precision and efficiency. Some manufacturers now provide the same advanced technology of standard hydrodemolition robots in lighter, smaller systems. At a fraction of the cost of standard machines, compact robotic Hydrodemolition systems provide a cost-effective mode of entry for concrete repair contractors who want to add hydrodemolition technology to their operation.



Many concrete repair contractors are turning to remote-controlled hydrodemolition robots to improve workforce utilization and jobsite productivity.

### The Cost of Being Tired

Tired workers can be a significant drain on jobsite productivity, dragging out project completion and racking up unnecessary labor costs. The National Safety Council estimates that reduced performance due to fatigue can cost businesses up to \$3,100 per employee annually. Hand



Remote-controlled compact robotic hydrodemolition systems allow workers to stand at a safe distance and monitor the equipment, reducing operator fatigue while simultaneously increasing precision and efficiency.



Since compact hydrodemolition robots can be mounted on standard scaffolding and work in tight spaces, including next to ledges, concrete repair contractors save time from not needing to set up fall abatement systems.

lances cause workers to fatigue quickly because they must resist back thrust as they operate the water jet. A worker using a 30,000 psi (2,068 bar) hand lance must constantly fight up to 54 lbf (240 N) for normal operation. The physical exhaustion translates to less productivity and greater cost for the business owner. Remote-controlled compact robotic hydrodemolition systems, however, combat worker fatigue. Ergonomic controls mounted at waist height allow operators to work for hours without tiring, improving productivity and allowing concrete repair contractors to scale their operations without spending more on labor resources.

### Productivity from Safety

Compact hydrodemolition systems allow operators to stand back from the area where concrete is being systematically removed, keeping them safe from flying debris and silica dust. And unlike hand lances or handheld pneumatic tools, these compact robots don't require workers' bodies to absorb any shock from the concrete removal process, preventing injuries to hands, wrists, shoulders and backs that are common with regular operation of handheld tools. Since compact hydrodemolition robots can be mounted on standard scaffolding and work in tight spaces, including next

to ledges, concrete repair contractors also save the time of setting up fall abatement systems. Operators can remain a safe distance from fall risk areas, eliminating the need for time-consuming assembly and tear-down of these systems.

Achieving a high water flow rate and reaction force is vital for water jetting tools to achieve the depths of removal necessary to complete most concrete structure restoration jobs. The lower flow rate of hand lances makes it difficult to remove concrete beyond a depth of .5 in (12.7mm). Compact Hydrodemolition robots can safely handle about 30 gallons/min (113.5 liters/min), three times the capacity of hand lances. These machines can handle up to 225 lbf (1,000 N) of reaction force compared to only 56 lbf (N) produced by hand lances.

Compact hydrodemolition robots can remove concrete at rates of 10 ft<sup>3</sup> (.28 m<sup>3</sup>) per hour. That means a job completed almost 10 times faster with a compact Hydrodemolition robot rather than a hand lance. The robots can also be programmed to maintain a specific depth of removal, a feat impossible from handheld water jetting tools. Constant depth control eliminates the unknowns in performance, giving concrete repair contractors more control of their projects and assurance that they can meet promised deadlines. Now more than ever, construction businesses need to adopt high-tech equipment to retain their workforce, increase efficiency and improve jobsite safety. With no end in sight to the skilled labor shortage, contractors can — and must — adapt new methods into their business model to thrive in a changing economic environment.

[www.aquajet.se](http://www.aquajet.se)



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Compact hydrodemolition robots can remove concrete at rates of 10 ft<sup>3</sup> (.28 m<sup>3</sup>) per hour, approximately 10 times the rate for a hand lance.

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# LOADS

**It's the rare contractor these days who doesn't need help on the jobsite, particularly when it comes to skilled labor. Though industry trade groups and educators are doing their best to lure more young people into construction, results of those efforts may well be several years into the future—small consolation for tackling today's needs, and building a backlog for the coming months.**

Fortunately, equipment manufacturers continue to build new machines with features designed to help contractors make the most of the labor they have available. This year's report on compact loaders and skid steers, for example, contains new and upgraded models suitable for all applications and needs, particularly the paramount priorities of productivity and profitability. If 2020 is the year for making a wise investment in new equipment, these products are a good place to start.

## **Cat's new D3 machines build on D and D2 Series' reputation**

Caterpillar announces the release of 16 new Cat® D3 Series Skid Steer Loader (SSL) and Compact Track Loader (CTL) models. These new machines advance the D and D2 Series' reputation for quality, comfort, and performance and deliver improvements in operator experience, and track loader stability. Entering and exiting the new D3 Series loaders equipped with an enclosed cab is now easier thanks to a wider opening cab door. Additionally, the distance between joystick pods has increased by 3 in (76mm), offering extra space for the operator inside the cab to deliver a more comfortable experience.

All Cat D3 Series CTLs feature standard two-speed travel to improve performance at the jobsite. These machines are geared to deliver high torque digging performance as well as high top-end speed for travel. The powerful Cat 279D3 and 289D3 loaders boast an 8.4-mph (13.6kph) top-end ground speed, a 20% increase over their D Series counterparts. The Cat 239D3 and 249D3 models are now built with 2-speed transmission as stan-



dard, versus the previous single speed, increasing travel speed by 9% and aligning these models with the rest of the two-speed equipped CTL model range.

The D3 Series Cat SSL and CTL models deliver Smart Technology that ushers in a higher level of integration between the machine and new Smart Attachments. This advanced attachment technology will allow the D3 Series Cat SSL and CTL models to automatically recognize Smart Attachments and convert machine controls to align with the operational and informational needs of that attachment. Cat SSLs and CTLs offer advanced control features that include Return-to-Dig and Work Tool Positioner to assist operators with repetitive tasks like grading, digging, and loading. These items are now bundled together with the dual direction self-level feature so that even more operators will be able to take advantage of features that automate machine functions to allow these tasks to be completed with less user interaction and expertise.

In conjunction with the D3 Series introduction, the previous XHP performance model identifier used with the 272 and 299 models has been replaced with XE badge. The 272D3 XE and 299D3 XE models represent the highest performance and most advanced technology available to customers in the Cat SSL and CTL line.

[www.cat.com](http://www.cat.com)

## **Bobcat launches new Stage V M-Series loaders**

Bobcat has launched new versions of its market-leading M-Series S450, S510, and S530 models, the first in the range to feature a specially developed Stage V-compliant Bobcat engine. The new loaders provide operators with increased performance, enhanced comfort and optimized maintenance requirements to maximize job site efficiency while preserving a compact size for work in tight spaces and easy transport. The new Bobcat engine provides 37% more torque and fast recovery from overload compared to the previous machines, which ensures increased comfort for the operator as they can work with the same power at lower RPM, at lower noise levels and with lower fuel consumption for the same jobs. A new high-flow hydraulics option for the S510 and S530 Stage V models allows use of higher-flow attachments such as sweepers, planers, and wheel saws. There is also a new air conditioning option on the S510 and S530. By offering the same power at lower RPM, the new Bobcat engine provides a significant decrease in noise levels, reducing operator fatigue and lowering fuel consumption for the same type of work. In addition, with an engine equipped with a diesel particulate filter (DPF) as standard, users can win in emission-regulated zones such as city and town centers.

The new Stage V loaders now feature the previously optional Deluxe control panel as standard, offering a choice of different languages and telematics to protect machines and to monitor their performance. Bobcat has also extended the choice of factory-installed tires for the





three models, ensuring they can be more closely matched to customers' applications right from the start. The cab on the new loaders is radio ready with a 12V power outlet for charging mobile phones and other devices, a cup holder, added storage compartments and new full-color, deluxe instrument panels. All three skid-steer loader models offer a two-speed option that boosts the maximum travel speed from 7 mph (11.4 kph) in low range to 10.7 mph (17.3 kph) in high range. The hydraulic bucket positioning option keeps the loader bucket level as the lift arms travel upward, enabling operators to spill less and work faster.

### Bold new styling for Bobcat's "One Tough Animal®" brand

Bobcat has introduced a new branding identity which reflects the company's iconic "One Tough Animal®" brand message, while representing more powerfully the core qualities of Bobcat equipment: Tough, Agile, and Versatile. At the same time, the new look unifies and strengthens the visual identity of all Bobcat product lines. The new styling is now more modular and can be applied to machines of all different types and sizes. As the first step of implementation of the new branding, the machine design element of the new scheme was used in the 2t to 4t R-series mini-excavators launched last year. New styling decals have now been added and are being launched to complete the new brand identity. For a number of years now, Bobcat's products have enjoyed a strong identity composed of white, black, and orange colors with the Bobcat logo.

"The simple vertical and horizontal character lines and the flat surface of the styling have served us well," explains Jin Hup Yeu, from the Doosan Design Center

in Seoul, who led the design team. "Yet, this is a completely new design for a new era – and the very attractive silhouettes and optimal proportions emphasize its unique personality. The new design uses a slight curve to better convey strength and toughness. And with a stronger, sharper-and-edgier profile, the new design communicates a more advanced, high-tech image. Moreover, the Bobcat logo on the back is finished with a stronger and more visible styling, with slight variations to accentuate the design of the particular product line."

The design language is slightly different according to the type, function and size of the equipment. For example, the compact machines emphasize the "Agile" and "Versatile" qualities with a look that is stylish and sleek. On the other hand, the larger tonnage machines put the focus on their "Tough" and robust qualities. By anchoring the new styling in the Tough, Agile, and Versatile keywords of Bobcat's DNA, the designers have breathed new dynamism into the equipment's distinctive silhouette and the unique, time-honored Bobcat image.

[www.bobcat.com](http://www.bobcat.com)

### Mustang by Manitou 1350RT compact track loader comes to North America

A new small-frame track loader from Mustang by Manitou brings a 1,350-lb (612kg) capacity option to customers in North America. The Mustang by Manitou 1350RT features an intuitive single joystick control, Level II FOPS and low maintenance engine for jobs from the construction site to the backyard. The Mustang by Manitou 1350RT punches above its compact dimensions with an overall width of



57 in (1,448 mm), height of 76 in (1,930 mm), and lift capacity of 1,350 lb (612 kg) at 35% tipping load. The Mustang by Manitou 1350RT features a 46.6-hp (34.7kW) Yanmar engine that utilizes automatic regeneration and zero fuel additives, providing clean emissions with little to no effort from the operator. Built on the proven design of the Mustang by Manitou 1350R skid loader, the 1350RT track loader provides superior weight distribution, stability and tractive effort. In addition, the cab-forward design of the 1350RT has a Level II FOPS and excellent visibility on all sides of the machine, allowing for precise material placement.

Mustang by Manitou's IdealTrax™ track tensioning system on the 1350RT saves on maintenance and track replacement costs by automatically tensioning the tracks when the engine is on. This process eliminates the chance of over-tensioning and extends the life of the tracks up to 15%. Track tension is released when the engine is turned off, reducing strain on sprockets and bearings. With IdealTrax™ there is no need to manually tension the tracks and changes on the jobsite are quick and simple. In addition, the Mustang by Manitou 1350RT track loader provides versatility on the jobsite with an exclusive Multi-Tach® attachment mounting system that is compatible with most allied track loader attachments. The Mustang by Manitou 1350RT is customizable with additional features including a fully-integrated back-up camera and a HydraGlide™





system for a smoother ride and less material loss. An additional self-leveling option keeps the attachment level while the unit is performing the lift function.

[www.mustang-by-manitou.com](http://www.mustang-by-manitou.com)

**ASV offers new machine packages**

ASV has introduced base- and premium-level configurations for its mid-sized Posi-Track® loaders. The options will make ASV's innovative, productivity-boosting compact track loaders more accessible to rental centers, homeowners and all sizes of businesses in landscaping, construction, rental and snow removal. Both configurations will allow operators to use ASV's trademark power and performance to do more work in more places. Customers will choose between base and premium versions of the RT-65, VT-70 High Output, RT-75, and RT-75 Heavy-Duty Posi-Track loaders. The premium configurations include additional productivity and comfort features to allow operators to get more done during long work days. The base models offer all the ASV DNA, including the industry-leading power, performance, and reliability customers have come to expect from these machines, for an excellent value and price point. Both configurations feature ASV's patented Posi-Track undercarriage. All Posi-Track loaders are backed up with ASV's new, industry-leading 2-year/2,000-hour warranty. The warranty covers tracks for the entire period and includes the industry's first and only no-derailment guarantee.

[www.asvi.com](http://www.asvi.com)

**John Deere upgrades G-Series Skid Steers and Compact Track Loaders**

John Deere enhances its lineup of five small-frame G-Series skid steers and compact track loaders, providing



visibility, safety and speed on the job site. The upgraded cab offers more comfort so operators can easily maneuver the machine and remain in the cab for longer durations on the job, without sacrificing performance. The small-frame cabs also include a new Bluetooth® radio option, and the redesigned manual control levers have improved ergonomic grips for increased operator comfort and accessibility. Other upgrades include protected auxiliary hydraulic lines that run within the boom for additional protection, ultimately extending the machine's life cycle. The machines have an optional capability to support two sets of counter weights, providing the operator with greater stability and capacity to lift heavier materials. The newly integrated 4-point-tie-down system increases overall mobility and impact on different jobs by enabling operators to securely and safely move the machine to different locations.

**Also from John Deere, a new high-lift option for 344L compact wheel loader**

The 344L High-Lift offers operators increased height and further reach for dumping or stacking, ag material handling, general construction or landscaping and snow removal tasks. With a maximum hinge pin height of 13.1 ft (4m), the high-lift option offers an additional 12 in (290cm) of reach compared to the standard version. The 344L comes equipped with the industry-exclusive Articulation-Plus™ steering system, enabling operators to maximize productivity with the ability to move faster and increase lifting capacity with the new high-lift option when moving or placing materials overhead. When equipped with a quick coupler and bucket, full-turn tipping load on the 344L High-Lift is 10,362 lb (4,700kg), allowing operators to confidently lift heavy masses overhead, while simultaneously leveraging the 344L's design, which includes a tighter turning radius, improved stability and additional supported lift capacity. The 344L's

operators with even more power and efficiency on the job site. While the five models (312GR, 314G, 316GR, 317G, and 318G) were introduced to the market more than three years ago, John Deere continually works with its customers in the landscaping, agricultural material handling and construction industries to better understand their needs and how to improve machinery for maximum productivity, uptime and solutions. The improved small-frame G-Series machines feature increased productivity and time-saving options. They can be equipped with an optional rearview camera and easy-to-clean cab windows for additional





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stability and maneuverability, combined with 103 hp (76kW) of maximum peak power, enable operators to deliver big results.

### New grading attachments for John Deere skid steers and compact track loaders

Helping compact equipment operators improve productivity and machine versatility, John Deere is pleased to add new 72-in (1,829mm), 84-in (2,134 mm), and 96-in (2,438mm) models to its referral attachments line from the leading manufacturer of grading attachments, Level Best®. The new grade control-ready Level Best Dual Mast PD Series box blades will improve productivity on John Deere skid steers and compact track loaders. Level Best box blades are available in Topcon ready 2D precision grading and 3D precision grading options. The 2D Level Best PD Series comes ready to produce precise 2D grading by working seamlessly with laser transmitters. The 2D system automatically adjusts the elevation by controlling the lift and tilt of the attachment to maintain vertical accuracy and smooth grading performance. The Level Best PD Series Grading Box System adjusts dozens of times per second to ensure a smooth grade with tight tolerances — ideal for precision grading.

Level Best designed the PD Series to take advantage of the push-pull directional work style of skid steer loaders for maximum production. The PD Series is made specifically for skid steer loaders and compact track loaders. The unique frame design gives operators exceptional control, efficiency and smoothness, and minimizes the potential “bounce” effect that can occur in skid steer loaders due to the short wheelbase. For jobs that demand 3D grading, Level Best grading boxes come ready to be used with Topcon GPS, robotic total stations or sonic technology. The grading box comes installed with the cables needed to work with Topcon 3D GPS. This allows customers to use the Topcon GPS systems they currently use on other machines. The main components can be installed on the grading box for a plug-and-play solution.

### Gehl RT255 Pilot Series track loader now available in North America

The new Gehl RT255 Pilot Series track loader is now available at dealerships across the US and Canada. Featuring an exclusive seat-mounted joystick, automatic track tensioning and top-rated hydraulic flow rates, the Gehl RT255 delivers maximum performance and versatility on the jobsite. This model also has one of the highest standard auxiliary hydraulic flow rates in the industry at 29.07 gallons/min (110 liters/min), with an option for 37.7 gallons/min (142.7 liter/min) with high-flow. A higher rate of flow allows faster cycle times, making the Gehl RT255 a highly efficient machine. Operators also have access to more attachments so it is ideal for applications such as landscaping, where an operator is often switching between buckets, tree spades, and augers. The Gehl RT255 Pilot Series track loader is a high-performance machine powered by a 74.3-hp (55.4kW) Deutz 4-stroke turbo engine with 243 lbf (329Nm) of torque. It has an operating capacity of 2,550 lb (1,157 kg) at 35% tipping load, and it can lift up to 10.7 ft (3.3m). In addition, a custom-designed undercarriage provides enhanced stability, grading, tractive effort and ride control.

The RT255 Pilot Series track loader is equipped with Gehl's industry exclusive IdealTrax™ automatic track tensioning system. IdealTrax reduces maintenance and track replacement costs by ensuring proper track tension upon engine start up and during operation. Tracks are not over-tensioned and there is less strain on sprockets and

bearings, which increases the life of the tracks by up to 15%. Track changes in the field are also quick and simple with automatic tensioning.

HydraGlide™, another exclusive feature on the Gehl RT255 track loader, provides a smoother ride with less material loss. The lift arm “floats” while transporting loads, and additional self-leveling keeps the attachment level as the operator raises and lowers the lift arm. Optional features on the Gehl RT255 Pilot Series track loader include a fully integrated rear view back up camera, IdealAccess fold-up door and Easy MANAGER telematics.

[www.gehl.com](http://www.gehl.com)

### Sherpa's two-speed evolution

A refined concept and user input makes SHERPA's 100 2Speed mini loader a true evolution of the company's 100 ECO, which turned the world of construction and demolition upside down.

As the name suggests, the machine has two speeds—one with more power to maneuver and work, and a second gear to cover longer distances with a higher speed. Thanks to the ingenious design with two hydraulic pumps, which may be operated while driving, the 100 2Speed is a real pleasure to work with. The SHERPA 100 2Speed is equipped with 5-in (127mm) full rubber wheels as standard.



[www.sherpaminiloaders.com](http://www.sherpaminiloaders.com)

### Wacker Neuson's new Series II large-frame skid steers and compact track loaders

Wacker Neuson's Series II large frame loaders include two skid steer models (SW) and two compact track loaders (ST). All models are powered by a 74.3-hp (55.4kW) Kohler diesel engine and offer standard auxiliary hydraulic flow of 22.1 gallons/min (83.6 liter/min) and optional flow of 31.7 gallons/min (120 liters/min). As the big brother to the company's medium frame line, the machines offer parts commonality and a proven design on the job site.

Wacker Neuson's new large frame loaders offer a cab that fully tips forward with the loader arms down, providing complete access to all maintenance components.



These machines are engineered to be user-friendly with a simple, open design and efficient layout that requires less time on daily service checks and more time on the job. The Kohler diesel engines feature a maintenance-free, regeneration-free aftertreatment system, eliminating the impact of extreme heat and downtime due to regeneration or the need for cleaning particulate filters.

The SW and ST Series II loaders usher in a new era of comfort features including repositioned joysticks that promote intuitive and comfortable operation. The high-visibility cab includes angled pedals and foot bed, as well as conveniently located switches that significantly reduce operator fatigue. Access in and out is easy with a wide door and step, plus there is no restrictive lap bar. Control options for any operator include mechanical hand-foot (SW models), electric-hydraulic (EH) hand-foot and selectable EH (ISO and H-pattern). This ensures operators with varying experience can efficiently operate the machines with ease.

The vertical lift models offer class-leading hinge pin height and all models features the largest fuel tank in its class, 40-gallons (151 liters), with an optional 50-gallon (189-liter) tank for track loaders, giving operators more time in the cab and less time spent refueling. All models also feature a variable speed cooling fan that provides on demand cooling of the engine, which maximizes efficiency, improves fuel economy and assists in cold starts.

[www.wackerneuson.com](http://www.wackerneuson.com)

### Kubota SVL65-2 is company's lightest, most maneuverable compact track loader

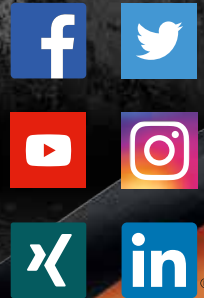
Kubota rounds out its SVL line with the new SVL65-2. The machine features an Advanced Multifunction Valve (AMV) that provides smooth operation when using simultaneous functions, such as auxiliary, boom and bucket circuits, allowing operators to be more productive throughout their work day. With the AMV, the SVL65-2 makes running any attachment that utilizes auxiliary hydraulics even easier, especially attachments such as grapple buckets, 4-in-1 buckets, and hydraulic augers. Powered by a 68-hp (50.7kW) engine, the SVL65-2 boasts a wide working range including a rated operating capacity of 2,100 lb (952,5kg) at 35%, or 3,000 lbs (1,361kg) at 50%, a reach of 34.9 in (886.5mm), and a hinge pin height of 118.5 in (3,010mm). The standard self-leveling feature can be





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engaged with the flip of a switch and keeps the bucket or forks level without the need to manually adjust the angle on the way up. Multi-function levers provide fingertip control of all major vehicle and attachment operations.

While the overall footprint on the new SVL65-2 is smaller, the cab is equivalent in size to Kubota's SVL75-2 and SVL95-2s. A wide door opening allows for easy and safe entry and exit. Consistent with the larger models in Kubota's SVL Series, the SVL65-2 features an easy-open sliding front door – its signature and best-selling feature – that can be opened regardless of the position of the bucket or loader arm; plus, full machine operation is possible with the door open, if desired.

[www.kubota.com](http://www.kubota.com)

### Komatsu launches WA80M-8 compact wheel loader

The all-new Komatsu WA80M<sup>7</sup>8 compact wheel loader delivers first-class operator comfort, optimum visibility, outstanding safety levels, an ergonomic interface, effortless operation, a new 24.8 mph (40kph) high-speed option, and a bold contemporary styling for a strong distinctive visual presence.

With an operating weight of 13,217 lb (5,995kg), the WA80M-8 is optimized for tough construction applications with a powerful Komatsu S4D98E<sup>7</sup>6VHA 72-hp (53.7kW) low-emission en-

gine that complies with EU Stage V regulations. With high rimpull, superior breakout power, high lifting and dumping height, and enough reserves for even the most difficult ground conditions, the WA80M<sup>7</sup>8 also features low fuel consumption. The operator can rely on Easy Fork kinematic to transport loads with Komatsu pallet forks parallel to the ground without readjusting the fork tines.

A 6,000-hour cleaning interval typically makes the DPF maintenance-free for 10 years. Komatsu's buckets are easy to fill; they offer increased operating comfort, boost the new wheel loader's productivity and help to reduce fuel consumption.

For maximum operational safety, the machine's low center of gravity enhances stability, and its compact dimensions and new engine hood ensure exceptional all-round visibility. The new large and multi-functional high-resolution TFT-LCD widescreen color monitor has 15 built-in languages. Improved ergonomic con-

trols include a PPC multi-function lever for easy operating. The optional air conditioner and Electronic Controlled Suspension System (ECSS) further promote comfort and productivity.

All maintenance and service can be performed easily and quickly thanks to the tilting cab. The engine hood opens widely for a quick daily inspection, the electric equipment is well protected behind a maintenance cover, and the easy-to-clean wide core radiator, with an optional reversible fan, is conveniently accessible. A compartment for the battery, main switch and relays improves maintenance access to the electrical system.

[www.komatsu.eu](http://www.komatsu.eu)





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# SCRAP SHEAR SHOWDOWN

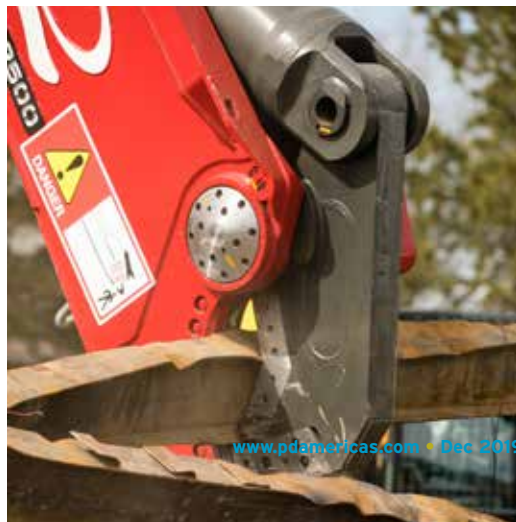
The development of the scrap shear was pioneered in the US in the 1980s by such giants of the excavator attachment industry as Roy Labounty and Bruce Bacon. Since its inception, the shear design has gone through a number of iterations before acquiring its current look. Today's scrap shear is a staple item in every respectable attachment supplier's arsenal, with European and Asian manufacturers steadily gaining ground on their North American counterparts.

**The FS145 - a new kid on the ShearCore block**  
Based in Superior, Wisconsin, ShearCore has introduced this year its new FS145 mobile shear, the largest in the company's product line of attachments for the demolition and scrap recycling industries.

"The new FS145 shear model is the culmination of the company's design policy of, 'begin every design with a foundation in experience and a desire to improve,'" says Bruce Bacon, president of the Exodus Group. "This shear model exemplifies that policy with a new tip design to handle the massive force this shear delivers. A new 'shark fin' rear lug design transfers stress in a new and improved method over any previous design in the mobile shear world, which allows higher forces to be distributed over greater mass. What this means to the customer is that this shear punches above its weight class; a big advantage in the steel processing world."

Weighing in at 12.7t, the rotating FS145R has a jaw opening of 3.9 ft (1.2m) and a reach of 14.7 ft (4.5m). The minimum excavator boom mount is 65.7t while the minimum stick mount is 113t. The FS145 is also available as a non-rotating model. The FS145 now brings ShearCore's Fortress mobile shear range to eight models. The Fortress line also includes the concrete processor 'cracker' series.

[www.shearcore.com](http://www.shearcore.com)







**LaBounty expands Legend series**

Starting April 2020, US based trendsetter in scrap shears LaBounty will start rolling out four new Legend models. The new shears are equipped with “Dual Max™ Indexable Protection” the full protection indexable piercing tip that defends the shear from wear, and reduces the need for maintenance. The Legend’s jaw design also produces up to 10% more cutting force than previous offerings. The attachments feature the InSite™ advanced telematics platform that provides actionable information about the shears’ condition and activity, such as job tracking, jobsite mapping and remote diagnostics. With the InSite app, available for iOS and Android, users have access to valuable information in order to optimize shear performance.

[www.stanleyinfrastructure.com](http://www.stanleyinfrastructure.com)

**MT series from Allied-Gator**

Allied-Gator Inc., another US based player, has been providing innovative hydraulic attachments for the scrap and demolition industries for more than 40 years. The MT® Multi-Tool™ series includes 11 sizes, ranging from 800 lb to 52,000 lb (363kg to 23,600kg), all of which utilize interchangeable jaw sets. The MT Quick-Change, Shear, Cracker/Crusher, Densifier” jaw sets ensure versatility. The MT delivers high levels of power due to its patented Power-Link and Guide™ system, with versatility and power further enhanced by Serrated Gator Blades™ designed exclusively for the MT mobile shear. These blades are said to outlast conventional shear blades by up to 50% when processing general scrap, and up to 90% when shearing steel wire and cable. As Allied-Gator moves into the future, it will be interesting to see how the MT’s innovative technologies and proprietary design features can help scrap or demolition operation become more productive and profitable,

[www.alliedgator.com](http://www.alliedgator.com)

**New Demarec DXS mobile shears with DemaPower 2.0 cylinder**

The brand new Demarec DXS-40 and DXS-50 mobile scrap shears are engineered to deliver high cutting force and optimal performance to weight ratio thanks to patented DemaPower 2.0 cylinder



technology. Unlike a conventional cylinder technique utilizing two oil chambers, DemaPower 2.0 technology is based on four cylinder chambers and two-way oil regeneration for open-to-close operations in combination with high shearing forces, resulting in very fast cycle times. The DemaPower 2.0 system generates 25% more power which results in a closing force equivalent to that of a shear one or two sizes up. The speed valve works in two directions during opening and closing. If the jaw senses resistance during closing, the valve switches from Speed mode to Power mode, and the full cylinder force from the DemaPower 2.0 cylinder becomes immediately available. According to the Dutch manufacturer, the DXS shears deliver up to 20 -30% more performance than rival brands, whilst reduced fuel consumption is another benefit of this solution. Other features of the DXS-40 and DXS-50 other remarkable features include a powerful swivel





to avoid high oil temperature and ensure high working speed, with the patented 'DemaSafety System' protecting the cylinder against excessive pressures on the rod side of the cylinder.

[www.demarec.com](http://www.demarec.com)

### RSS range from Rammer

The Scrap Shear Range (RSS) from Finland based Sandvik company Rammer, comprises of nine models, fitting 4t to 90t carriers. Manufactured from wear-resistant HB400 steel, the shears feature hydraulic rotation, rotation protection, heat-treated pins and bushings, and weld-free cylinder rods. All new models are equipped with a speed valve for improved cycle times, whereas a smart jaw design allows the material being cut to fall away from the cutting area, enhancing performance and increasing uptime. A central pin adjustment system helps prevent jaw deviation to maintain maximum cutting performance. This system has been proven to reduce operating costs by minimizing the amount of material stuck in the jaws.

[www.rammer.com](http://www.rammer.com)

### Hydraram rolls out the Terminator

Netherlands based Hydraram has recently shipped the first units of its newly developed HRS-27T scrap shears to customers in Germany and Australia. The letter 'T' in the model designation stands for "Terminator," which speaks volumes about the shear's power and efficiency. Weighing in at 1,500 lb (2,680kg), the new model boasts a jaw opening of 33.6 in (855mm) and delivers high cutting force. Due to the combination of wide jaws and relatively low weight, this model is ideal for mounting on long front excavators. Made from Hardox Hituf® steel, the shear is equipped with two hydraulic motors, two reversed cylinders and a double bearing slewing ring. The HRS-27T fits 23t to 34t machines or long-front excavators which can carry a weight of up to 6,614 lb (3,000kg).

[www.hydraram.com](http://www.hydraram.com)

### Green Attachments presents the Yellow scrap shear range

Finland based supplier Green Attachments now offers the Yellow SH range of scrap shears consisting of 11 models to



fit 7t to 130t excavators. Intended for heavy duty applications, the shears are manufactured from wear resistant steel. Long reversible blades allow the cutting of big beams while optimum kinematics helps keep steel objects deep inside the jaws where the pressure is at its maximum. An optional speed valve is available for increased performance, whilst bolt on piercing tips make maintenance easy and have adjustable cushions for precise and reliable movement. Axles are hardened and greasing points have been designed in a way to make maintenance easy.

A heavy-duty pivot pin adds strength and durability, with changeable oversized steel bushings helping extend the shear's service life. Hydraulic rotation simplifies the positioning of the tool as is essential when the shear is used for material sorting. Rotation is provided by the orbital hydraulic motors with a planetary gear and double pressure relief valves. The shears have a removeable maintenance cover to shorten service time.

[www.greenattachments.com](http://www.greenattachments.com)



### BPH features 14-model Prodem range

Based in West Sussex, UK, BPH is a specialist supplier of excavator attachments under the brand name Prodem. Developed for working in the toughest demolition and recycling environments, Prodem shears feature a bolt-on piercing tip and blades. Thanks to an innovative speed valve, a reduction in cycle times regenerates power and protects the shear by eliminating internal oil pressure peaks. Twin upper jaw guides make for precise alignment, increasing cutting power and efficiency. The shear's cylinder is accessed via bolt on access panels, making it easy to service and maintain. A weld on upper jaw protection system reduces maintenance and build-up on the upper jaw, thereby reducing downtime on site.

The smart design also reduces stress and wear to the upper jaw with the blades being able to be turned up to four times before they need to be replaced. Available for purchase or hire, the Prodem dedicated shear range includes 14 models to fit excavators weighing between 3.5t and 310t.

[www.bphattachments.com](http://www.bphattachments.com)



### VTN makes a "revolution" with CI series

Italy based manufacturer VTN Europe has expanded its CI series of scrap shears with the addition of four new models: the CI8000 R, CI10000 R, CI15000 R, and CI20000. The letter "R" in the model names stands for "revolution" or "rotation." The new shears benefit from an improved design and the use of special steels allowing the frames to withstand high loads. Other highlights include an inverted cylinder and a piercing tip with a special fastening system to increase wear resistance.

[www.vtneurope.com](http://www.vtneurope.com)





## Demtech 2019 - India's First Demolition Conference

# A True Success

India's ever first conference for demolition, recycling and remediation was held on November 13 at the Hotel Sahara Star in Mumbai. The result of the event can be summarised in a few words: a true success!



The board of IDA – Demolition Association, from the left: Subramaniam Mohan Raj, Fazrulla Bashra, Akhil Jain, Mohan Ramanathan, Kannan Paulthurai, Jigar Chedda, Piyush Gandhi and Shiriram D. Matte.



Mohan Ramanathan.

Although PDa Magazine and Riverbends Publishing, LLC, were co-producers of Demtech that is not the reason why the event was such a success. "It was actually true", smiles PDa publisher, Jan Hermansson.

### Risky project

To arrange a new industry-focused conference was a risky project. Mohan Ramanathan, owner of the Indian demolition and recycling company ACT, located in Chennai, contacted the PDa Magazine staff at their booth at the bauma show in April this year. Ramanathan frankly asked if the magazine, and its sister magazine PDI, were interested in supporting and co-producing the event. The answer was: "Yes of course!". The reasons were simple: PDa and PDI, are truly international publications for demolition, recycling, remediation, concrete sawing and drilling, concrete floor grinding and polishing, and related service and product sectors. Hence Demtech was exactly the kind of event PDa and PDI wanted to be involved



Volvo were the headline sponsor of Demtech 2019. In the picture Dimitrov Krishnan, VP & Head Volvo CE India is thanking the events initiator Mohan Ramanathan.



Jan Hermansson, PDI and PDa Magazines.



in. After agreeing of cooperating with organizing the event, intensive work with planning and marketing campaigns started with several online meetings, numerous emails, and WhatsApp conferences. Livewire Media, a Chennai-based event and media company, was hired to assist with planning and practical actions.

"We had roughly six months to find sponsoring companies, and work out an interesting conference agenda with speakers that both could present the current situation on the construction market in India and what can be expected in the coming five to ten years," says Ramanathan.





Ribbon cutting ceremony with Mrs Usha Batra and the IDA board of directors.



**Strong support from the sponsors**

Volvo India agreed to be the headline sponsor, with Epiroc, Hilti, Brokk, Aquajet Systems, and Sennebogen acting as associate sponsors. Husqvarna, Edifice, Pentrunder, Shear-core, Kemroc, Kobelco, and Tyrolit were affiliate sponsors.

Initially it was decided that Demtech should have a rather small exposition area, only with small information booths for the sponsors and table top booths for companies that would only like to present their products with documentation. The interest for the exhibition area was so great that the sponsors' were also allowed to exhibit actual products. An additional 10 companies wished to participate with table-top booths: Trevi Benne, Rotar, Demarec, Schwing Stetter, Hydrotec, Philtec E&C PTE Ltd, SDT Sanwa, Indo-Spark, Terex, and Wirtgen Group.

Even with interest from manufacturers and contractors, we were not sure however how many people would be attending. As we approached the beginning of October there were still only around 70 people who had registered, but then something happened, in particular, when the social media campaign commenced. As more



speakers, sponsors and exhibitors committed to come, the registered number started to rise, reaching 256 registered participants plus invited speakers and guests on the day of the conference.

**A day rich in information**

Demtech was formally opened by Usha Batra, special director general of India's Central Public Works Department. Following greetings by other government officials, the day's presentations began with topics including the







The Demtech India 2019 conference ended with a panel discussion lead by moderator Jan Hermansson from PDI Magazine (far left). The panel participants were, from the left Professor N. Gopalakrishnan, Director at CBRI (Roorkee), Mr. Shriram D. Matte, Director at Matte & Associates, Mr. Dimitrov Krishnan, VP & Head Volvo CE India, Dr. K.N. Sathyanarayana, Director at IIT Thirupathi and Subhashis Bash, Marketing Director at Hilti India.



Lipi Goyal, well-known Indian MC, actor and model, was the presenter of the event. current and future state of India's construction economy.

A number of interesting case studies in the demolition and recycling sector were also presented. Uttkarsh Mehta, partner in the company Edifice, made a presentation on the advanced dismantling of the MG Sethu Bridge, while Sunilkumar Vishwakarma, head of planning Tata Projects Mumbai, related the construction of cross passages in the new Mumbai Metro. Youssef Hallak, head of Romania's LT Diamond

Cutting, explained decommissioning work undertaken on a nuclear plant in the country.

Attendees also heard presentations from the sponsors and manufacturers such as Volvo, Epiroc, Hilti, Brokk, Aquajet Systems, and Sennebogen. The day closed with a panel discussion on India's potential in terms of extended demolition, recycling and remediation services.

Of course, Demtech would not be complete without an evening gala dinner that included the official formation of the Indian Demolition Association, the first of its kind in the country, and a long-time dream of Ramanathan. Along with Ramanathan, the IDA board of directors includes Jogar Chedda, a partner with Edifice; Shiram D. Matte, director of Matte & Associates; Akhil Jain, Jain Engineers & Consultants; Fazrulla Basha, director Abcon Concrete Surgeons Pvt. Ltd.; Mohanraj, director Rapid Cutting Technologies India Pvt. Ltd.; Kannan Paulthurai, director P. K. Cutting

Tech Pvt. Ltd.; and Piyush Gandhi, director Genesis Engineering. The evening continued with music, and an Indian buffet with an open bar. At the end of the party, Ramanathan even accompanied the musicians in a couple of songs.

Demtech India was a true international event with participants from 18 countries: India, US, UK, Spain, UAE, Japan, Singapore, Netherlands, Switzerland, Germany, Sweden, Romania, Russia, Austria, Italy, Liechtenstein, China, and Saudi Arabia

Demtech has also given India's demolition industry a taste and appetite for more of this type of event. As part of IDA's first meeting, the board approved staging a similar event in November 2020 at a venue to be determined in Bangalore, with a full exhibition area will be set up including room for live demonstrations. Watch PDA for details.

[www.demtech.in](http://www.demtech.in)  
[www.indiandemolition.org](http://www.indiandemolition.org)







# FULL SPEED AHEAD

Conjet is now taking an important step forward in terms of improved product development and production, marketing and global sales of advanced hydrodemolition equipment. Since November 2019 Gulfstream Nordic Holdings AB (GNH) has entered into an agreement to acquire a majority shareholding in Conjet AB. This new partnership with GNH will fuel and accelerate the future growth for Conjet, the world's leading player in terms of hydrodemolition equipment. Read more on [www.conjet.com](http://www.conjet.com).



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# FOR SAFE HYDRODEMOLITION





## Aquajet Introduces Powerful Aqua Cutter 710V for Heavy-Duty Concrete Removal

Aquajet Systems introduces its farthest-reaching unit, the Aqua Cutter 710V hydrodemolition robot. It's the largest of its kind and offers exceptional horizontal, vertical and overhead reach — as high as 23 ft (7m). The 710V comes equipped with Aquajet's hallmark ceramic nozzles that last as much as 79% longer than standard steel versions. Its design makes it suitable for a wide variety of concrete removal tasks, such as renovation and bridge and road repair. Aquajet will highlight the Aqua Cutter 710V, along with other innovations, at booth F101901 during Conexpo-Con/Agg, March 10-14, 2020, in Las Vegas.

The 5,070-pound (2,300-kilogram) Aqua Cutter 710V uses 14,500- to 40,000-psi (1,000 to 2,758 bar) water jets to remove as much as 35 ft<sup>3</sup> (1 m<sup>3</sup>) per hour of concrete. Contractors adjust the robot's stroke to control the depth of cuts and vary the pressure of the water jet depending on whether they are removing loose, deteriorated concrete or lowering the sound concrete to a pre-determined depth.

Operators can control the 710V from a safe distance using the unit's radio remote control, either wirelessly or with a hard wire. The remote communicates with the robot's wheeled power control module. Contractors use Aquajet's unique cutting head, extended reach and its multi-axis 3D positioning system to efficiently operate on all horizontal, vertical and overhead areas that would be difficult to get at with other equipment. This includes straight up and down work, such as renovating walls, shafts and furnaces. In addition, the 710V easily removes concrete in corners that would be difficult to access with hand tools.

The 710V features a powerful 24-hp (18kW) diesel engine. Contractors can add an Aquajet Hybrid Kit, which easily attaches to a diesel-powered Aqua Cutter robot for electric operation in parking garages, inside buildings, or other constrained environments. The kit uses an intelligent system to automatically disengage the onboard diesel engine.

Aqua Cutter robots feature unique ceramic nozzles specifically designed for demanding hydrodemolition ap-



**Aquajet Systems AB introduces the Aqua Cutter 710V hydrodemolition robot. The unit's innovative mast system and unique cutting head allow for exceptional reach in horizontal, vertical and overhead applications.**

plications. The highly efficient nozzles last 300-350 hours, depending on the water quality. Standard steel nozzles on competitive equipment typically have a lifetime of 20-40 hours. All Aqua Cutter robots feature Aquajet Systems' patented Equal Distance System, which keeps a preset distance from the nozzle to the concrete surface, regardless of the angle of the water jet, allowing for maximum efficiency and productivity. The 710V robot fits into Aquajet Systems' 23-ft (7m) Power Packs. The large metal containers include a high-pressure Hammelmann pump, large capacity diesel engine and control system, with a convenient storage area for the robot. The hydrodemolition robot features unrivaled ease of access for all maintenance, allowing for minimal downtime. The unique gullwing hood and foldable back cover of the Aqua Cutter robot offers total access for both daily maintenance, such as checking oil levels, as well as periodic service jobs, such as oil and filter changes.

The robot also comes in a larger version, the Aqua Cutter 710V XL. The 5,357-lb (2,430-kg) 710V XL is 23% larger than the 710V, allowing for lower overall ground pressure and the ability to handle more reaction force. The 710V and 710V XL are both compatible with Aquajet accessories, such as rotolances, circular power heads, spines, and frames.

[www.brokk.com](http://www.brokk.com)

## Brokk 200 Returns to World of Concrete

The Brokk 200, which was introduced at last year's World of Concrete, returns to Las Vegas for the show's 2020 edition, joining other machines in the company's Next Generation lineup at booth C4547. The machine comes equipped with Brokk's signature SmartConcept™ technology for increased efficiency. SmartConcept™ includes the extra power of SmartPower™, the added reliability of SmartDesign™ and enhanced ergonomics and productivity of SmartRemote™.

The 36.8-hp (27.5kW) machine operates tools with requirements typical of one weight class above. When paired with the new Brokk BHB 305 breaker, the unit's hitting power is increased by 40%. The new class of machine delivers 450 lbf (610 J) with each blow of the 650-lb (295kg) hydraulic breaker. In addition to its heightened power, the Brokk 200 offers 15% longer vertical and horizontal reach in a compact footprint similar to the Brokk 170. The extra chassis length and machine weight ensures proper balance, even when wielding heavy attachments, such as breakers, drum cutters, grapples, and concrete crushers. The Brokk 200 is ideal for heavy duty, difficult-to-access projects and applications and represents the new standard in compact remote-controlled power.

[www.brokk.com](http://www.brokk.com)



**Brokk offers the Brokk 200, a new weight class of machine. The new model packs the power of a 3-ton Brokk machine into a 2-ton package.**



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# Qualified Removal by Demco in Verona

## Removal of 580t Helicopter Platform.

When Italian company Finalfa decided that its old and dilapidated helicopter platform had to be demolished, it decided that the best option for a safe but yet efficient job was to ask Demco, one of Italy's most prestigious controlled demolition and dismantling contractors, to take on the job.

Demco was founded in 1995 by Marchetti Giancarlo and Pierlugi Magri, both of whom have a long and proud history working with concrete cutting and controlled demolition techniques. Starting in a small workshop in the northern Italian city of Seriate, Giancarlo and Magri gradually built their business with more clients and larger projects. In 2003 the company acquired a new office and workshop in order to house more equipment and an increasing number of staff.

With a skilled workforce, the right equipment, and extensive knowledge concerning different demolition methods, Demco has been used on an increasing number of advanced projects, which often

involved exporting the company's expertise overseas. Demco today consists of a tight team of 15 trained operators and technicians and enjoys annual revenue of \$2.5 million. Demco's services include controlled demolition using hydraulic and high-cycle concrete cutting systems such as diamond wire sawing units, wall saws, concrete core drilling systems, and hydraulic demolition and cracking devices. When larger-diameter tools are needed, Demco is always ready secure the needed equipment and get to work.

The Demco team is constantly involved in projects that require working 24/7 as needed. While Italy remains the firm's home market, Demco's work is becoming increasingly pan-European with projects in France, Spain, and Serbia. They've also been called across the Atlantic to handle a project in Mexico.

### Tough task in removing a helicopter platform

Because there's no such thing as a "typical" job for Demco, thorough estimations and technical calculations are necessary in order to carry out the assignments properly, safely, and efficiently. Such was the case in July-August 2019, when Demco was called into remove Finalfa's 580-ton, 69-ft (21m) wide, and 31.5-in (800mm) thick platform helicopter platform.

Located atop a 131-ft (40m) high main office building in Verona, Italy, the platform had deteriorated over the years and posed a threat to the safety of the building's 200 occupants. What's more, the platform no longer seismic regulations, increasing the risk of a potential hazard in a region that regularly experiences seismic activity.

Demco's mission was to figure out the most secure



method of demolishing and removing the helipad, mitigating the danger and allowing Finalfa to begin the process of securing a more modern replacement structure. Extensive planning work was initiated in order to find the best method to demolish the platform, with the planning done in cooperation with an engineering company. Several different methods were tested and modeled, accounting for all the potential risks to occupants and Demco workers, as well as cost, weather, logistics, and other factors.

The method chosen saw the platform being removed from the concrete columns it was resting on simultaneously by using two huge mobile cranes, both with a large lifting capacity. If the weight placed on the structure was unbalanced then it could damage the structural integrity of the building, so it was calculated exactly where on the platform surface the lifting handles had to be positioned. These consisted of eight heavy iron frames, with four located on the upper side





and four under the platform, bolted together two by two, with the holes for the bolts being core drilled through the heavily reinforced concrete platform.

After the lifting frames were positioned, the lifting cables of the cranes could be attached. The two cranes then secured the platform, and wire sawing of the platform's support columns got underway. The platform was then lifted down to the ground. For safety reasons, during the whole of the dismantling work and the platform lift, the building was evacuated. Once safely on the ground, the platform was broken up into 346 yd3 (265m3) of material and recycled.

**Specialist knowledge gives more job options**

Finalfa was amazed and quite satisfied with the work and how smooth and safe the whole project proceeded. For Demco's Magri, the project couldn't have gone better.

"Our goal and objectives with the whole project were fully achieved," he says. "Everything went according to our plan."

Magri adds that the project's success will reinforce Demco's standing as a leading problem-solver for advanced and specialized demolition projects in Europe.

"The demolition market can be rather difficult to work in at times, with a very hard price competition," he explains. "But our specialized knowledge and equipment gives us a big competitive advantage for these kinds of projects. A traditional demolition contractor normally doesn't have the knowledge. That is why we are quite busy with a lot of work."

In the future, Demco plans to continue its growth track, and capitalize on its strengths. The company wants to become even more specialized in its field, and continue to increase the quality of its services, equipment, and expert personnel.

[www.demco.it](http://www.demco.it)





# Controlling Dust Levels In a Hospital Zone



**Atomized mist effectively suppresses fugitive dust in the air and on the ground, without excessive runoff.**

The Medical University of South Carolina (MUSC) in Charleston has begun construction of the MUSC Shawn Jenkins Children's Hospital and Pearl Tourville Women's Pavilion.

The team of Robins & Morton/Cumming/Brownstone started the demolition of a series of concrete buildings on the MUSC grounds, which are to be replaced by a new \$385 million state-of-the-art concrete, glass and steel facility scheduled to open in 2019. The project involved demolishing four buildings from a 185,000 ft<sup>2</sup> (17,187 m<sup>2</sup>) area in 6 months. Being surrounded by fully operational hospital facilities, the goal of the project was to conduct a compliant and environmentally-responsible demolition, with the lowest amount of fugitive dust emissions possible.

To begin the takedown, boom excavators with hydraulic attachments cut thick rebar-reinforced concrete supports into measured chunks. Approximately 94% of the 7,000 tons of metal, concrete, brick, wood, lighting, and piping were separated and transported to recyclers throughout the process.

One of the challenges the team faced was a significant amount of dust produced by demolition activities, debris separation and the loading process. In addition, adverse

weather conditions and debris storage piles – as much as 6 ft (2m) tall -- had the potential to contribute to air quality issues. Sitting directly on the site line is the Charleston Center, a rehabilitation clinic, and the MUSC Hospital Ashley River Tower, the newest cancer care center built in 2008. Surrounding the location is the entire pediatric, patient care and cancer research infrastructure of MUSC, spanning several blocks. These sensitive environments caused hospital administrators concern over the effect of atmospheric particulate levels on patient treatment and recovery, so board members required extra monitoring and data collection.

In addition, a densely populated community surrounds the facility, where high airborne particulate levels could yield complaints from neighbors. The area's weather plays a large role in the management of fugitive dust as well, since the site is near the tip of Charleston's South Channel leading into the Atlantic Ocean. High winds off the ocean can intensify as breezes move up the channel and into the river basin, contributing further to the challenges of effective dust control.

## Creating a Dust Plan

With the local community and weather issues in mind, the air quality plan for the project was written in accordance with federal and state requirements, which restrict fugitive particulate matter (PM) measuring 2.5 microns in diameter or larger caused by industrial activity from affecting the air quality in the surrounding area. Tiny particulates less than 10 microns in size are considered "respirable," which means that they can bypass the body's natural defenses and enter deep into the lungs, potentially contributing to health issues -- especially for people with current respiratory conditions.



**The mobile DustBoss DB-60 Fusion can be easily towed with a pickup or skid steer for repositioning.**

To ensure dust levels were compliant with MUSC expectations and air quality regulations, Robins & Morton required the use of a DustBoss® suppression system from BossTek in the air quality plan. Project managers rented two DustBoss DB-60 Fusion™ atomized misting cannons and used them at various points on the site throughout the project.

Mounted on a roadworthy trailer with a standard pintle hitch, the DB-60 Fusion system uses a specialized barrel design with a powerful 25-hp (18.6kW) industrial fan on the back end and a misting ring on the front. A 10-hp (7.5kW) booster pump draws water from a 1.5-in (38.1mm) fire hose and increases pressure to as much as 250 psi (17.2



**Surrounded by buildings on all sides, the concrete buildings are carefully broken down by excavators.**

bar), supplying the circular manifold fitted with atomizing nozzles. The nozzles fracture the water into an engineered mist, and the fan throws millions of tiny droplets in a 200-ft (60m) cone, covering up to 62,800 ft<sup>2</sup> (5,834 m<sup>2</sup>) when using the 0-180° oscillator.

The unit was powered by a 45-hp (33.5kW) Genset with a John Deere diesel Tier III Flex engine and fed by a 100-gal (378 liter) fuel tank. Delivering approximately 24 hours of runtime, the gen set and fuel tank are located on the trailer and housed in a protective metal cabinet. The machine's functions can be controlled via digital touch screen display mounted on the unit in a NEMA 3R enclosure. The entire system can be shut down, hitched to a pickup truck, moved easily around the site and positioned by a single worker within minutes.

Unlike large sprinklers and hoses, which are usually maneuvered by workers standing near large machinery and in proximity to dangerous impact or loading zones, the DustBoss is fully programmable, requiring no manual labor for ongoing operation. This allowed workers to concentrate on other important tasks further away from the most dangerous areas, creating a safer and more efficient worksite.

At MUSC, the most effective method during upper level operations in windy conditions was to place one DustBoss at the point of the shear, and the other on the opposite side of the building. Smaller, lighter droplets offer air suppression high up, and larger droplets provide surface suppression in the impact zone, confining the dust to a limited area.

In demolition projects like the one at MUSC, loading material in windy conditions at debris storage areas can create large amounts of dust. By keeping the debris contained in one zone, a single atomization unit was able to cover the whole storage area. When the wind was calm, the atomized mist machines worked in tandem to offer dust suppression over the entire site.

Proof of the effectiveness of atomized mist is in the project's daily data log, with consistently low dust levels. Regular checks of the air intake filters for the hospital revealed no significant increase in particulate capture.

[www.dustboss.com](http://www.dustboss.com)

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## Indeco Hammers Used for Track Excavation on Bari-Taranto Railway

An HP 9000, two HP 7000s, with help in the home stretch from the big gun, an HP 18000, have helped deliver a huge excavation project

The excavation job on the project involved digging a series of cuttings, tunnels, and embankments for a 6-mile (10k) double-track railway between Bari Sant'Andrea and Bitetto, connecting the two Apulian cities with a high-speed line. The second track is being laid along a totally new route, which means getting rid of no less than six level crossings in the town of Modugno, which will help increase the amount of rail traffic and ensure faster train journeys. The excavations and reinforced concrete works were entrusted by RFI SpA, a company in the Ferrovie dello Stato group, Italy's national rail corporation, to Matarrese Srl.

The overall length of the stretch involved is 7.5 miles (12km), including 1.2

miles (2km) along the pre-existing route, as well as 6 miles (10km) of new line along a cutting where nearly two million yd<sup>3</sup> (1.5 million m<sup>3</sup>) of limestone had to be excavated. The main hammers used for the excavations were an Indeco HP 9000 and two HP 7000s. Daily production was approximate 980 yd<sup>3</sup> (750m<sup>3</sup>) for the HP 9000 and 719 yd<sup>3</sup> (550m<sup>3</sup>) for the HP 7000 over the course of around 800 working days. This was in line with expected performance targets.

At the intersection with the pre-existing track, night trains had to be cancelled, leaving just 55 hours to build the new underlying rail section and put back the overlying track. For this part of the job, an Indeco HP 18000 hammer was used, which reduced excavation times by more than half—from 20 hours to just 8 hours—with hourly production of about 654 yd<sup>3</sup> (500m<sup>3</sup>).

[www.indeco-hammers.com](http://www.indeco-hammers.com)



## High-End Builder Finds Robotic Solution for Historic Demolition Project



Belvedere's Lava House, an unfinished and abandoned mansion with amazing views of San Francisco Bay and the iconic Golden Gate Bridge, was an irresistible draw for teenagers, thrill seekers and, more recently, social media users looking for an Instagram-worthy shot. With safety concerns mounting from deterioration and limited site access for emergency responders, though, property trustees stepped in to remove the iconic construction and stabilize the landslide-prone cliff face 2018.

Jamba Construction was tasked with finding a safe, efficient demolition solution. Steep terrain and a narrow site eliminated the option of large excavators and relying on smaller pneumatic equipment to demolish an estimated 1,000 yd<sup>3</sup> (764.5m<sup>3</sup>) of concrete would be time consuming, dangerous and unnecessarily expensive. Jamba turned to a revolutionary process gaining traction in the demolition industry — robotic demolition.

Jamba contracted a landing craft to deliver a track loader with a grapple attachment and a ten-wheel dump truck to the beach area of the site as well as to remove debris by sea. The actual demolition would be bit more difficult, though. The narrow waterfront and difficult currents made it impossible to bring in the equipment necessary to work from below. Accessing the property by land was also a challenge. Due to landslides and deterioration of existing structures, there was no driveway or clear path to access the site, preventing Jamba from simply driving in equipment. Jamba was forced to come up with a creative solution to lower equipment from the street above. A narrow, two-lane road running across the top of the four lots created almost 400 ft (122m) of road access, but a low rock wall fronted the property along most of that length. Additionally, a 60-degree incline just off the shoulder restricted access for larger equipment. In the end, Swanson and his team could only identify one 8-ft (2.4m) section with the access and tie-off points necessary to safely lower equipment 150 ft (45.7m) to the jobsite below. This meant they would need to find

a small machine with the hitting power of a much larger excavator.

So, Jamba partnered with a third party to operate a BROKK 160 remote-controlled demolition robot at the Lava House jobsite for one month. The demolition robot's compact design and hitting power — comparable to that of a 4.5-ton excavator — was perfect for tackling the narrow passages and complex architecture.

After a thrilling descent where the Brokk operator worked in tandem with a 25-ton tow truck to lower the Brokk 160 to the jobsite, Jamba was ready to start the demolition phase of the 10-month project. Jamba crews worked to clear paths and backfill areas of the landslide-prone site to stabilize it while the Brokk operator hammered away at the concrete and lava structures. The Brokk machine was able to produce 300 lbf (1,334N) of hitting power at up to 1,400 blows per minute using a SB202 breaker. The Brokk operator started demolition on the roof of the garage and steadily worked his way down, creating paths out of debris for the robot to maneuver to the next level.

In one month, the Brokk machine demolished 11,200 yd<sup>3</sup> (917.5m<sup>3</sup>) yards of concrete and lava, completing 60% of the overall demolition. Using a MB-L140 crusher bucket, Jamba crushed 1,000 yd<sup>3</sup> (764.5m<sup>3</sup>) of concrete and lava for backfill to stabilize the site. An additional 1,000 yd<sup>3</sup> (764.5m<sup>3</sup>) — along with 200 yd<sup>3</sup> (153m<sup>3</sup>) of steel, wood and other materials — were removed by barge to recycling facilities in the Bay Area.

With the completion of phase one, the Brokk 160 was demobilized from the site and winched back up the slope. While they waited for cooler fall temperatures to start the landscaping phase of the project, Jamba completed demolition and debris removal with supplementary equipment.

In less than one year, Jamba completed the multi-faceted demolition project. And, while the Lava House's iconic structures might be gone, the million-dollar views remain.



# Sennebogen 870 E Long-Reach Demolition Machine Provides Benefits



**The 870 E long front demolition material handler carrying out controlled demolition in crowded downtown Munich.**

Limited space, time pressure, and often, challenging building layouts are the most common characteristics of downtown demolition projects. Factoring in occupational safety and efficiency as well creates the need for machines that operate with the latest technology and provide maximum comfort. Sauer Bau und Projektentwicklung GmbH, based in Starnberg, Germany, saw these as reasons for choosing the Sennebogen 870 long-reach demolition machine

The 870 E is a real multi-tasker when it comes to the controlled demolition of buildings, with the key being Sennebogen's tried and tested optional quick-change system. This enables the machine to use a demolition grab to remove sections of a building, crushing material on the ground using the shears or a hammer attachment, and pre-sorting materials for subsequent removal from site or loading trucks.

With an operating weight of up to 117t depending on the equipment and attachments being used, the 870 E long front demolition material handler is also a veritable "green giant." This has proved to be essential when working in a confined space, as well as when operating grabs and removing demolition material from heights of up to 108 ft (33m). As of 2019, another version has been introduced that can work easily up to 118 ft (36m).

The 870 demolition material handler's "Green Efficiency" engine system features automatic stop and idle functions as well as optimized coordination of the engine and hydraulics resulting in fuel savings of as much as 20%. In addition, the machine

requires less transportation and fewer staff to facilitate these tasks. The sophisticated self-assembly system enables the installation of the rear mounted ballast and the boom without the assistance of an additional crane, meaning only three machine parts have to be transported before starting work. Another plus is that thanks to the compact, telescopic undercarriage, the main body of the machine fits easily onto a low loader.

### Occupational safety

The higher weight of the 870 demolition material handler ensures stability, while "bulletproof" glass and roof gratings protect operators from falling material. Additional stick mounted cameras help monitor the work area, while a uniquely elevating cab can tilt upwards by 30° and also elevate nearly 9 ft (2.7m), bringing the operator nearer to the demolition area and enable work in an ergonomic position. An optional electronic work area monitoring system prevents the 870 demolition material handler from tilting due to overload.



## Genesis Shears Enable Cost-effective Demolition of Viaduct

The Langenschwarz Viaduct located on the A7 federal motorway, near Fulda, is being replaced. Wende, the company tasked with taking down the 1,070-ft (326m) structure, has used robust excavator attachments from Genesis for the job. Wende Erdbau is a specialist in earthworks, demolition and recycling, being based in Fulda in Hesse, Germany. Operating since 1947, the company and its current 70 strong workforce are at present demolishing the Langenschwarz Viaduct on the A7 federal motorway. The structure was built in 1967 and is now no longer able to cope with today's traffic loads, requiring replacement by 2021. The western section of the structure is being completely demolished, including its superstructure, pylons, foundations and abutments.

"We need to remove a total of around 20,000 tons of reinforced concrete," explains Wende managing director Sebastian Wess. "The crushed and processed concrete has already been firmly incorporated into our operational material logistics plans. The scheduling is also tight because the new bridge is already being built while the old one is being demolished."

The 115-ft (35m) high bridge required a supporting scaffold to be erected specifically for the demolition of the super structure. A 30t excavator equipped with Genesis GDT 290 demolition shears will deal with the box girder, then sort the materials into the steel and concrete piles to be cut using Genesis GXT 225 R scrap shears. A 35t long-front excavator will then start demolishing the bridge pylons that have been exposed following the removal of the bridge sections. A 40t excavator equipped with a shorter arm and delivering more hydraulic power will then be used to speed up progress on the last 16 ft (5m) down to the foundations.

"The high art of demolishing a bridge structure is all based on proceeding rationally," Wess says. "We're breaking new ground with this demolition project and have equipped ourselves specifically to this end."

In addition to the usual attachments, such as hammers and grabs, the 30t long front excavators have been fitted with 6,482-lb (2,940kg) GDT 290 demolition



**Wende is using heavy duty machine technology to demolish the motorway viaduct at Langenschwarz, including using three excavators fitted with Genesis demolition shears.**

shears, while the 9,193-lb (4,170kg) GDT 390 shears have been installed on the 40t excavator. All have been supplied by Bischoff Baumaschinen GmbH, which is an authorized Genesis dealer.

"The equipment possesses a heavy duty and high quality, while very slim design," says Wess. "It allows the wearing parts to be replaced quickly. These shears enable us to make rapid progress while maintaining high operational safety and low wearing costs."



**Combined forces: (from left) sales professionals Ernst Kotthoff (Genesis GmbH) and Michael Geitz (Bischoff Baumaschinen) with Sebastian Wess (managing director of Wende Erdbau).**



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## MB Crusher Units Provide Effective Solutions to Complex Problems

On the construction site, small equipment, such as skid steers, loaders, and backhoe loaders, are often used for collateral or smaller work. For companies that deal with road work, urban construction sites, trenching, recycling, agriculture, foundries, quarries, and mines, the task of the main work generally falls to excavators. MB Crusher units are able to help transform skid steers and backhoe loaders into powerful machines capable of handling demanding jobs and still save time and money.

MB Crusher's ultimate goal is to transform any machine, of any size, into a powerful crusher or screener. MB Crusher equipment can hook up to any brand of skid steer, loader, or backhoe loader from 2.4t to 25t, with mechanics that are innovative, with a simple operation enabling the crushing and screening of any material for immediate reuse or resale. All of this can be done directly onsite by reducing or screening demolition or excavation material, selecting ferrous foundry scraps, and processing and reusing waste.



As the MB Crusher units can transform waste into reusable materials, producing savings on hauling expenses, avoiding landfill fees or specialized treatment centers, saving on purchasing aggregate material, hiring operators and reducing long working hours. The benefits delivered are also important for the environment and nearby urban areas, with reductions of dust and emissions, lower truck traffic, less noise, and faster job execution.

There are numerous examples of the successful use of the MB Crushers. In the US, a construction site was situated on a volcanic hill where a large structure with concrete pillars, floors, and walls needed to be demolished. Access to the area was limited, unsafe and with limited room for maneuver. With the MB-L140 crusher installed on a Kubota skid steer, the company crushed the demolition waste and used the crushed concrete as backfill for the construction of a new road to provide better access to the job site.

MB Crushers can process more than waste and construction materials. To help remediate millions of acres of sodic-contaminated soil in Australia, a MB-L140 crusher bucket mounted on an ASV RT unit reduced gypsum rocks into fragments that "mineralized" the soil, promoting drainage and safely restoring the site for planting crops.

Making the units even more attractive for use, MB Crushers share a quick and simple installation with their carriers, with operation and maintenance being performed directly on site by the operator without needing specialized personnel.

[www.mbcruiser.com](http://www.mbcruiser.com)



## Crushing in the City Center Thanks to the Lowest Emissions



**The first mobile crusher for recycling construction and demolition waste delivered by RM to Mexico. Copyright Rubble Master.**

In Latin America the concept of recycling is not yet as firmly established in the construction industry as elsewhere. So far, the main applications for crushers here have been for crushing natural rock. Happily, demand is gradually increasing for environmentally friendly and innovative solutions for recycling C&D waste and other materials, such as household and industrial waste.

One of the Latin American recycling pioneers is the city of Cancún. C&D waste is currently being processed by a Rubble Master RM 100GO! machine. In perhaps the most beautiful city on the Yucatán peninsula, this is a pioneering project implemented jointly by Rubble Master and the city administration.

Instead of transporting concrete, C&D waste and asphalt away from construction sites and disposing of them in landfills, the RM 100GO! recycling system transforms them into valuable final materials that can be reused. These are then used directly on site for fillings and the substructure of roads.

"The Rubble Master benefits, such as compactness, mobility and rapid machine set-up time, make it much easier to use and enable flexible recycling of the material," says Ricardo Archundia, Secretario, Municipal de obras y servicios publico in Cancún. "Because the crusher is usually used to process C&D waste in the city centre or in residential areas, low noise, dust suppression, and low CO2 emissions are basic requirements for sustainable operation."

While the idea of recycling construction and demolition waste materials was only just beginning to take off, Gerald Hanisch founded Rubble Master back in 1991 and created a new market as a result. Today Rubble Master is the world market leader in the compact crushing sector, with 80 sales partners in around 110 countries worldwide. Besides the core markets of Central Europe and North America the company also supports satisfied customers in Eastern Europe, Russia, Africa and South America.

[www.rubblemaster.com](http://www.rubblemaster.com)

## Astec Launches Ranger Compact Track Line

Astec Mobile Screens is launching a new line of compact, track-mounted equipment. The new equipment, marketed through licensed dealers as the Ranger™ line, will include a variety of jaw crushers, impact crushers, cone crushers, incline screens, and trommels.

These compact units will serve a variety of new markets including building and con-

struction, landscaping, quarry operations and plant and tool hire. The ease-of-use, ease-of-transport, versatility, and flexibility of compact, track-mounted units make them ideal for smaller operations that require powerful equipment with a limited footprint. The Ranger line will be represented by a network of dealers with the capacity to support the equipment and sustain a strong rental program for its customers.

[www.kpijci.com](http://www.kpijci.com)



## KPI Adds Optional Pre-screen to FT4250

Kolberg-Pioneer has added a two-deck, 4x7 ft (1.2x2.1 m) pre-screen option to its FT4250 mobile impactor plant. The new option allows producers to scalp the feed, crush the material and post-screen all on one unit. By pre-screening the feed, users can maximize their scalping ability and minimize the amount of undersized material passing through the chamber, reducing wear costs and increasing the amount of final product by 30%.

"Several of our customers are trying to produce products that have a significant amount of fines in the feed material," says Tim Harms, crushing and screening product manager at Kolberg-Pioneer. "The pre-screen allows producers to remove those fines while also minimizing the amount of rejected in-spec product."

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# Successful Shipwreck Salvage in Norway

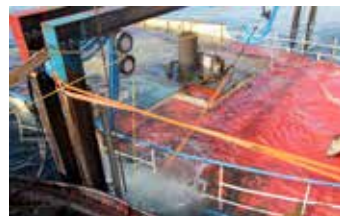


The shipwreck was cut into several parts in order to bring it ashore safely.

During a heavy autumn storm in September 2018, the ship M/S Osfjord ran aground off the coast of Trøndelag in Norway. Several attempts to salvage the shipwreck were unsuccessful, as none of the used methods were able to get the job done. In a final attempt at salvage, the ship was to be cut into smaller pieces with a wire saw, so that parts of the wreck could be loaded onto a barge and brought ashore. Kristiansand Bygg of Norway was awarded the contract. From the very beginning of the salvage operation, the contractors selected the Tyrolit DWH-S diamond saw wire for use on a wire saw from the Italian machine manufacturer Benetti. Tyrolit also mounted two FZ-45 hydraulic wall saw bodies on VAS rails, which could move upwards to ensure a sufficiently aggressive cutting angle. Overall, Kristiansand Bygg only needed 26 days and seven cuts to get the shipwreck safely onto the barge. The diamond saw wire DWH-S did a great job with only 1,148 ft (350m) of wire being required for the task—nearly 330 ft (100m) less than initially estimated.

For the realisation of the project, the contractors selected the Tyrolit DWH-S diamond saw wire for use on a wire saw from the Italian machine manufacturer Benetti. Tyrolit also mounted two FZ-45 hydraulic wall saw bodies on VAS rails, which could move upwards to ensure a sufficiently aggressive cutting angle. Overall, Kristiansand Bygg only needed 26 days and seven cuts to get the shipwreck safely onto the barge. The diamond saw wire DWH-S did a great job with only 1,148 ft (350m) of wire being required for the task—nearly 330 ft (100m) less than initially estimated.

In addition to the challenging timeframe, care had to be taken throughout the project not to pollute the sea. The Norwegian Coast Guard therefore continuously inspect-



Not an everyday job: Kristiansand Bygg needed seven cuts with 350m of diamond saw wire to salvage the wreck.



The “work horse” amongst hydraulic wall saws. The quick separation flange on the swivel arm provides simple and fast blade replacement, and facilitates flush cutting applications. Combining the FZ-45 wall saw with hydraulic drives with outputs of up to 53.6 hp (40kW) accommodate blade diameters of up to 86.6 in (2,200mm).

ed the seabed with a remotely operated vehicle (ROV) to ensure that the project did not leave any contaminated residue.

[www.tyrolit.com](http://www.tyrolit.com)



## First Rockster Impactor from New Headquarters Already in Action

The first R1000S impact crusher, from Rockster’s new headquarters facility in Mühlviertel, Austria, is already working hard for Hopf Bagger KG, an earthworks and forestry specialist. A 6-acre (2.4 hectare) site is now being subdivided into 23 plots for single-family and semi-detached houses. The Rockster Scalping Screen RSS410 has already been a valuable asset for this project.

“Thanks to the mobile screener, we can process all the excavated material from the construction site and repurpose it again immediately,” says CEO Martin Hopf. “We use all generated fractions: the 32/60 and 16/32 roll gravel for drainage, 8/16 material as channel chippings and the fine material 0/8 as cable sand. We do not have to transport and dispose the material, nor do we need new raw material. This saves us a lot of time and money and also protects the environment.

In mid-November 2018, Hopf took delivery of the R1000S. “Although we are crushing extremely rough gravel here, the cubic end material that we get with the crusher is perfect,” he says. The first day of operation, operators were crushing 138 tons per hour to less than 1.25 in (32mm).

The compactness of the R1000S Impact Crusher is particularly important. Hopf can transport it with his own truck, which brings maximum flexibility. This plays a major role in the newly targeted contractor business.

“The height-adjustable magnetic separator helps to remove iron, while the screen box is mounted quickly, so you can meet a variety of customer requirements,” Hopf says. “The belt scale ensures an easy and correct billing. In combination with the scalping screen we have, we can generate three precisely defined fractions in a single operation.”

The Rockster double-apron design and the two-deck pre-screen system was exactly what convinced Martin Hopf that R1000S is the optimal machine for his company.

“The R1000S is a well-designed and finely constructed machine that can optimize the crushing process with ease and great accuracy,” Hopf says with confidence. “The engine compartment is easily accessible, and the components are not too complicated.”

Rockster sales manager Norbert Feichtinger adds that during development of each Rockster crusher, “we put great effort and importance to engine accessibility. If the engine is easily accessible, maintenance will be easier. It will be done regularly and most importantly – it’s cost effective. All of these add to the longevity of our machines where quality is our number-one priority.”

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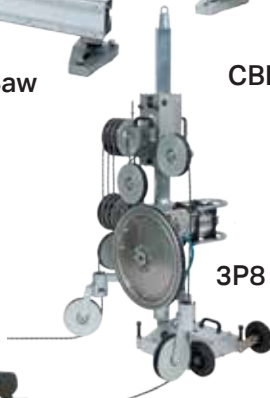
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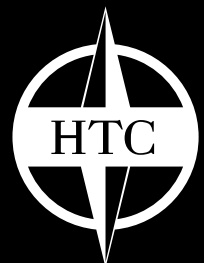
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