

PROFESSIONAL DEMOLITION AMERICAS

Your Gateway to North, Central and South America

Volume 4 • Issue 2 • 2016

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The Power of “?”

Another season of industry trade shows has come and gone. Even if one went home with only some brochures and business cards, there’s no denying that there is a lot of innovation going on among manufacturers (much of which you can read about in this issue of PDA).

Now, it’s time to put that seasonal “fantasyland” of displays and demonstrator equipment behind, and put those tools to work. And for some contractors in PDA’s coverage area, that’s easier said than done.

Certain areas continue to struggle economically, leaving job opportunities few and far between, or not large enough to justify a major deployment of resources. The result is an ongoing struggle just to break even.

In other cases, jobs are out there, but the absence of skilled labor constrains a contractor’s ability to compete for them. And despite the availability of equipment that’s never been “easier” or more comfortable to operate, even trainable workers seem to be at a premium in many locations.

So what to do?

The answer is as close as closer than you may think. In fact, you’re using it now. It’s right there, behind your eyes.

Construction and demolition may appear to be all about concrete and equipment, but it’s also very much an art and a science. One of the first and most lasting lessons learned in this industry is that not just anyone can grab a cutting saw, a floor grinder, or a demolition machine remote control, and immediately start doing the job. Doing quality work takes skill and experience.

Similarly, making a living from doing that kind work stems from a combination of business acumen, leadership, and common sense. And

like doing the work, it requires contractors to use every opportunity to learn, whether it’s a time-saving technique in the field or a new marketing strategy that will help make potential customers aware of your services.

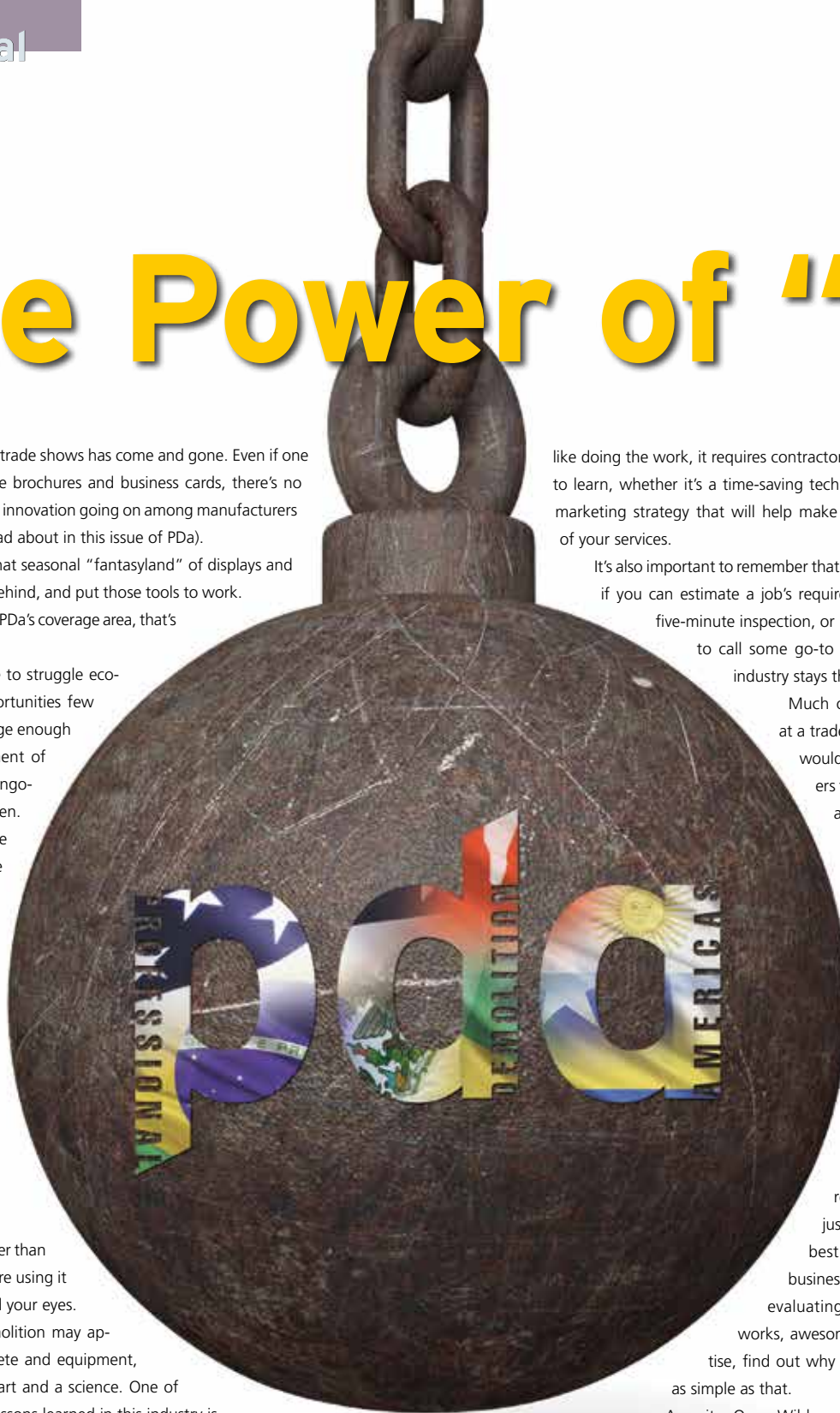
It’s also important to remember that nobody “knows it all.” Even if you can estimate a job’s requirements based on a cursory five-minute inspection, or know the time of day when to call some go-to customers, nothing in this industry stays the same.

Much of the equipment you saw at a trade show just 10-15 years ago wouldn’t pass muster among buyers today, nor will placing wants ads likely attract the same quality pool of workers as before. The 21st Century is really here, and even basic nuts-and-bolts (or in our case, blades-and-bits) industries have to change with them.

That’s where that valuable tool behind your eyes comes in. Many of the skills necessary to survive and thrive in 2016 (and beyond) are relatively easy to learn. It’s just a matter of choosing the best tactics for your particular business, implementing them, and evaluating the results. If something works, awesome. If it falls short of expertise, find out why and try something else. It’s as simple as that.

As writer Oscar Wilde once wrote, “The answers are all out there. We just need to ask the right questions.” So...start asking.

Jim Parsons, Senior Editor
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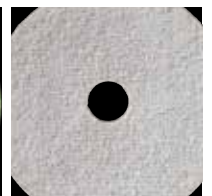
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Ron Griess.



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Koleberg, Johnson, and Astec Announces New Sales Directors

Kolberg-Pioneer, Inc.; Johnson Crushers International, Inc.; and Astec Mobile Screens,

Inc. are pleased to announce the promotion of Ron Griess to North America Sales Director - East, and Jeff Lininger to North America Sales Director - West. In his new position, Griess will be responsible for directing, administering and coordinating all domestic field sales operations for the eastern region. Lininger will hold those same responsibilities for the western part of North America. Griess has been employed at Kolberg-Pioneer for 29 years. Most recently, he served as the product manager for the crushing, screening, and track product line. Previously, he held positions in the sales and engineering departments, both as a sales applications representative and as an electrical designer. "Ron has an intimate knowledge of all aspects of our company," says Ron Earl, vice president of sales and marketing. "I am confident we will continue to increase our presence in the eastern region with his experience of all product lines, product management and years spent in the field." Lininger has been associated with the three companies since 2002. Most recently, he was the general manager of Astec AggReCon West and prior to that was the director of products and sales for Johnson Crushers International, Inc. "Jeff's extensive experience comes from growing up in this industry, working for his family's company and then moving into the distribution side of the industry over 16 years ago," Earl says. "His skills and knowledge will be instrumental as we strive to increase our domestic sales in the western region."



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Blastrac Opens Oklahoma City Store

Blastrac NA has expanded its Oklahoma City headquarters operations with a new 25,000 ft² (2,322m²) store. In addition to Blastrac products, the store also carries other products for surface preparation jobs.

The store celebrated its grand opening in May with a Contractor Open House that

included machine demonstrations, giveaways, and door prizes.

Bob Foote, who just celebrated his 25th Anniversary with Blastrac and formerly headed the firm's inside sales/customer service operations, will manage the store.

www.blastrac.com

How will Brexit Effect the Global Economy?

United Kingdom has voted. And the majority of the population want that the country will leave the European Union. When the outcome became clear on the morning of June 24, the whole of Europe woke up in shock. British Prime Minister David Cameron wanted to challenge voters and his party had probably not anticipated the outcome. In a statement on Friday Mr. Cameron announced that he will remain as Prime Minister during the coming next three months. The direct effect of that the Englishmen wish to leave the European

cooperation came as a shock for the world's stock markets who plummeted. So did also many different currencies including the British pound. The pound reached its lowest point ever. The currency, however, increased sharply was the US dollar. How the new situation, with the UK coming out of the European Union, will affect the market and, for example, foreign companies having their headquarters in the UK, is very unclear. At present, there are many questions that need answers, and the confusion is total.



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Event Calendar

ConcreteShow 2016 Brazil
August 24-26, 2016
São Paulo Expo, São Paulo, Brazil
www.concreteshow.com.br

DEMCON 2016
September 29-30, 2016
Infracity, Stockholm, Sweden
www.demcon.se

Conexpo Latin America 2016
October 10-11, 2016
Lima Exhibition Center
Lima, Peru
conexpolatinamerica.com

Bauma China 2016
November 22-25, 2016
Shanghai New International
Exhibition Center, Shanghai, China
www.bauma-china.com

Bc India 2016
December 12-15, 2016
Huda Ground
Gurgaon, Delhi, India
www.bcindia.com

World of Concrete 2017
January 17-20, 2017
Las Vegas Convention Center,
Las Vegas, USA
www.worldofconcrete.com

**US Demolition Association
Convention 2017**
January 28-31, 2017
Las Vegas Mirage Hotel & Casino
Las Vegas, USA
demolitionassociation.com

CONEXPO-CON/AGG
March 7-11, 2017
Las Vegas Convention Center,
Las Vegas, USA
www.conexpoconagg.com

**CSDA Convention &
Tech Fair 2017**
March 2017
Puerto Rico
www.csda.com

Fabtech Mexico
May 2-4
Cintermex, Monterey, Mexico
mexico.fabtechexpo.com

GSSI Unveils StructureScan™ Mini XT

GSSI, the world's leading manufacturer of ground penetrating radar (GPR) equipment, announces the launch of the StructureScan™ Mini XT, the newest generation of the company's popular all-in-one concrete inspection GPR system.

Rugged, compact, and flexible, StructureScan Mini XT is ideal for locating rebar, conduits, post-tension cables, and voids. The Mini XT can help identify structural elements, including pan deck and concrete cover, and provide real-time determination of concrete slab thickness.

The integrated all-in-one concrete



inspection tool comes with an antenna, positioning system, and control unit combination. It features an intuitive touchscreen interface and six-button control options. With its 2.7 GHz antenna, the StructureScan Mini XT offers superior target resolution. It can reach depths of 20 in (50cm). The system is positioned .3 in (8mm) off the surface, providing additional ground clearance that allows the Mini XT to be used over rough concrete surfaces.

The redesigned StructureScan Mini

Meet the Bosch RH328VC-36 Bulldog^a 36V Rotary Hammer

All rotary hammers are not created equal, and none offer the one/two punch of 36V power combined with battery runtime, user comfort and innovative features that make the Bosch RH328VC-36 Bulldog^a 36V 1.125 in (28.575mm) SDS-plus[®] Rotary Hammer a standout. The hammer provides maximum productivity with 2.4 lbf (3.2Nm) of impact energy for fast, consistent drilling and chiseling in concrete. The vibration-dampened handle of the 9.9-lb (4.5kg) hammer provides maximum comfort working all day. Active Response Technology shuts the tool off should the bit get into a bind situation. The tool also offers Electronic Precision Control (EPC), which provides users precise drilling thanks to the advantage of 70% power soft-start. That means virtually no walking and no skating when it's time to



XT features a rugged compact design, IP 65-rated to withstand a jobsite's toughest conditions. Users get first-in-class data visualization with a state-of-the-art 6.5 in (165mm) HD touchscreen user interface

and different operation modes tailored for beginner to advanced use. The unit also makes it easy to customize the data display with a variety of color adjustments. Real-time migrated data, onscreen reference markers and real-time signal floor indicator are also available.

Other features include three accessory ports to allow for future expansion, a removable handle for reduced vertical clearance, positioning lasers, power saver mode, and 4-wheel drive.

Easier demolition with General Equipment CTS12 Generation 2

General Equipment Company introduces its second-generation CTS12 RIP-R-STRIPPER[®], which offers updated features that lower maintenance and increase productivity, making it an even more efficient solution for removing ceramic tile, hardwood flooring and other tough floor coverings.

With a new, easier operating on/off control, the CTS12 Gen 2 is designed to enhance maneuverability, control and visibility. Its unique configuration allows users to operate electric-powered breakers in an upright position, which helps increase productivity while reducing strain on operators' knees and lower backs.

The CTS12 Gen 2 features increased flexibility, accepting new mounting kits for the Hilti TE-1000-AVR breaker. The unit also continues to work as a tool carrier for electric-powered breakers with force ratings between 30 and 45 lbft (40-61 Nm), and includes popular models of Bosch, Makita, and Hitachi.

As with the original model, the accessory tool angle of the CTS12 Gen 2 can be adjusted to nine different self-locking positions, allowing the operator to find the best performing approach to each unique application. A new productivity-boosting mechanism accommodates breaker variances in mounted chisel orientation to the working surface. The new feature allows the adjustment of both wheels, keeping the chisel flat on the working surface and reducing tool wear.

The Anti-Vibe[™] handle is adjustable to enhance operator comfort, and is rubber-insulated to reduce vibration. It also folds for simplified storage and transport.



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"Banksy"

Graffiti Taken Off the Wall

Colin Walker, Managing Director of UK concrete cutting firm Truecut Diamond Drilling Ltd., shares an interesting story concerning a cut-out job of a painting by noted graffiti artist Banksy.



Truecut Diamond Drilling was initially contacted by its supplier EC Hopkins about a customer who wanted a Banksy cut-out, and was considering purchasing a chain saw to do this himself.

Because the site is going to be demolished and redeveloped, the customer wanted the Banksy removed and go into restoration and storage so that it could be placed on display the new building for future generations to see. We gave an initial price to cut out the whole of the wall, fix plywood to either side, and lower the supported section onto pallets.

After a visit to the site it turned out the client did not require "the full monty." He simply wanted the quickest and most cost effective option Truecut could supply, as the render and artwork had some substantial cracks, which Truecut had pointed out

when suggesting the first option.

On closer inspection of the wall at another location, Truecut could see it was a double layer of render. They would be able to cut out a chase to the side of the artwork wide enough to get the ICS chain saw into. The chase would also be flush enough for Truecut to cut the back of the render and the face of the brickwork.

One of our Senior Supervisors Mr Graham Field carried out the cutting works to the saws maximum depth, allowing the client and his operatives to tease and wiggle out the cut and cracked sections to the nearest crack and carefully remove them to their vehicle for future reassembly and restoration in a metal frame to go into the new building. The works created quite a stir on social media, with the painting even

reported as being stolen. The police showed up to ask what we were doing, but the client soon allayed those fears. We were able to complete our task unhindered within the day as we had quoted.

www.truecutdrilling.co.uk

Keith Haring Dog, which was discovered in October 2010 in Bermondsey, London. It pays tribute to legendary street artist Keith Haring. There is a juxtaposition of the hooded boy in Banksy's dark and menacing stencil style and the more playful look of iconic stylized dog that Haring made famous in the 1980's. The owner of the building which this piece adorns has attempted to preserve it with a clear perspex overlay.



JIM'S

Summer is breaking out and in full bloom in most of the Northern Hemisphere, which makes it a good time to think about breakers. What does the season of spring have to do with hydraulic breakers? A lot more than you may think.

By Jim Parsons.

Spring, after all, is a time of renewal—both in nature and in many demolition contractors' work schedules. And the first step in the renewal of a site, a building, or a major piece of infrastructure, is by breaking up the concrete that's already in place. To do that, and get going on constructing the structure that will take its place, a contractor needs the best, most efficient breaker for the job.

And it's not just about impact power or blows per minute. The breaker needs to be easy to use and maintain, and also durable so that its owner's operations will blossom into greater efficiency and productivity, resulting in a greener—that is, more profitable—bottom line.

With Bauma and other trade shows on the calendar this year, equipment manufacturers are putting both their newest products and proven favourites on display in the hope of catching the eye of prospective buyers. While some will be reserved for show attendees to have the first look, the descriptions below will help you get started on the search for that "perfect" breaker. You may not actually "fall in love" with the breaker, of course. But you're sure to love what it does.

Furukawa Rock Drill's new products at Bauma

Furukawa Rock Drill will use Bauma to launch several new

products, including Fx hydraulic breakers, the VXB primary crushers, and the RC22ER rail cutter.

The five new Fx-series hydraulic breakers, with an operating weight of 152lb to 606 lb (69kg to 275kg) are designed for use on excavators ranging from 0.5t to 7t. They are fitted with an adjustable pressure/flow adjuster to ensure optimum performance with the host carrier excavator.

As with all FRD products, the Fx-series comes with interchangeable parts such as rod liner and front cover. The rod liner can be changed easily and the rod pin is easy to reach, so that the rod can be changed without any problems.

FRD offers these small breakers in three different frames. The models Fx15 to Fx55 in a standard version for pin mounting, the models Fx25 S to Fx55 S in a silent version, and the Fx25 XS to Fx55 XS in the Xtra silent version.

FRD will also use Bauma to add two models to its FXJ series of hydraulic breakers, bringing the range to six models for use on 9t to 75t excavators.

There'll be more than just breakers on display at FRD's exhibit. Visitors will see three models of FRD's VXB series of primary crushers for excavators weighing from 2t to 13t. The VXB series have a compact design, large jaw opening, and high crushing power. The crushers have an

integrated booster system, which allows smaller excavators, with limited operating pressure, to achieve extremely high crushing force.

All models are fitted with the FRD hydraulic rotation system for precise positioning. As with the whole FRD range, the crusher body and their jaws are made out of Hardox. Depending on the model, the jaws are fitted with replaceable teeth.

FRD will also use Bauma to present its first rail cutter model—the RC22ER, designed to cut high tensile bars. All current Vignol rail tracks up to 1,371 lbft (900N/mm²) with profile size S7 UIC 60/60 UNI can be cut precisely. A force of 201psj (1,390kN) and kinematics of the movable jaw, which has an opening of 8.9 in (225mm), provides the necessary power to cut all common profiles, as well as the UIC 60 profile.

The RC22ER, for use with 21t to 35t class excavators, weighs just under 2.5t. The model is fitted with special cutters, which can be rotated so all four sides of the cutters can be used. The reverse mounted hydraulic cylinder has maximum protection and long service and maintenance intervals have been achieved. The RC22ER body is made of Hardox and has undergone special heat treatment.

Robi pulverizer highlights Ramtec's Bauma offerings

Three Finnish companies will join forces to show a wide variety of attachments that can be used in recycling, demolition, and other applications at Bauma. The group is lead by Ramtec, an established attachment manufacturer, and supported by Bauma newcomers Ecomeca and Marttini Metal.

The core product of Ramtec's display is the new Robi RP32R pulverizer, the third model in the Robi pulverizer series designed for secondary stage demolition. It can be mounted on excavators between 22t and 35t. The weight without the top plate is 5,886 lb (2,670kg), with a maximum opening of 34.7 in (882mm) and a jaw depth of 34.5



HIT LIST

in (876mm). The Robi RP32R features improvements such as a high-speed valve, changeable wear parts, rotation/non-rotation option, optimized kinematics, and open or closed design according to the application.

Robi will also display the DG15R demolition grapple with new P jaws that are specially designed for heavy duty demolition applications, as well as sorting and handling. At the show it will be attached to a Mårtini Metal tilt rotator. The DG15R is designed to be attached to excavators in the 8t to 16t class.

A further piece of machinery on Ramtec's stand is Hytera HTB high tip bucket. It is designed to be mounted on a wheel loader for tipping various materials to the truck bed. The primary use is in soft materials up to 11,368 psi (800kg/m³). Suitable materials include woodchips, snow, peat, coal and expanded clay insulation material. Ramtec also offers a reinforced tip bucket model, which can handle materials up to 17,052 psi (1,200kg/m³).

Atlas Copco's new RTEX handheld breaker reduces energy consumption by 50 percent

Thanks to the invention of a new operating principle – Constant Pressure Control, improved energy transfer within the breaker and the new RHEX Power Chisel – Atlas Copco's RTEX handheld pneumatic breaker achieves record-high breaking efficiency. The RTEX has the breaking capacity of a 66 lb (30kg) or greater breaker, using only half as much compressed air while being 25% lighter.

The RTEX is a great tool to work with. It has the breaking performance of top class 66 lb - 77 lb (30kg to 35kg) breakers, but weighs only 55 lb (25kg). Measured according to EN ISO 28927-10, the 3-axis hand-and-arm vibration is below 16 ft/s² (5 m/s²). Under these conditions an operator can work up to eight times longer than with conventional breakers, according to the safety guidelines.

This is thanks to the Constant Pressure Chamber on the top of the breaker, which serves as advanced pneumatic suspension. The tool is more compact than a traditional breaker, which makes it easier to work with in constrained areas and provides a more ergonomic working position. Stiff handles and the Sofstart™ function make it very easy to control the power of the RTEX.

One of the most intriguing features of the RTEX is that it offers a 50% reduction in compressed air consumption for the same breaking capacity. This means that a compressor only half the size is needed, or that two breakers can be used on a compressor which previously powered only one breaker. The result is a smaller investment in the compressor, reduced fuel consumption, easier transportation, and less emissions.

All this has been made possible thanks to a new working principle invented by Atlas Copco engineers Olof Östensson and Thomas Lilja from Construction Tools Innovation Centre in Kalmar, Sweden.

"In a conventional breaker air is discharged each time the acting piston moves up or down," Östensson explains. "In the RTEX, we discharge the air only on the piston's return stroke. Then, the constant pressure from a chamber on the top of the RTEX pushes the piston down. As pressure on top of the acting piston is constant, it does not generate vibrations as on conventional breakers, so there is no need for vibration damping."

Östensson and his team achieved this performance by relocating the valve from the top of the breaker to the bottom—a new "Up-Side-Down" concept.

"The new, longer and heavier piston transfers power much more efficiently to the unique 'RHEX' Power Chisel," Östensson says. "Even though the RTEX can work with conventional chisels, the RHEX is specially tuned to our new breaker in order to achieve optimal shock wave interaction for better breaking performance. The RHEX also has a special concave tip profile which significantly reduces jamming."

New Cat® H80E/Es hammer reduces fuel use, increases carrier utilization

The new Cat® H80E/Es hydraulic hammer, designed for the full range of Cat backhoe loaders and for 307 and 308 excavators, is available in both conventional (H80E) and silenced (H80Es) versions. The new hammer, which replaces the H75E/Es model, is completely designed and manufactured by Caterpillar®, giving Caterpillar the distinction of being the only global manufacturer to build both hammer and carrier. The H80E/Es, fully supported by Cat dealers, delivers 1,000 lbf (1,356J) of energy at 600-1,500 blows per minute (bpm).

The H80E/Es has a lighter operating weight, compared with the predecessor model, resulting in greater working stability and increased carrier fuel economy. In addition,



the new hammer accepts a wider range of hydraulic-oil flow, allowing the H80E/Es to be used with a variety of carrier brands for optimum utilization in mixed fleets.

The E-Series hammers range builds on proven D-Series features, including an automatic shut-off system that instantly stops hammer operation when the tool breaks through material. The system increases hammer reliability and durability by eliminating high internal stresses created by blank firing. Sound suppression is a standard feature for the H80Es, protecting the environment and enhancing operator comfort.

The H80E/Es hammer uses a gas-fired system that maintains constant power between service intervals. The E-Series housing, built for strength, has a curved profile, front and back, that eliminates stress points and transfers forces to the bottom of the hammer. The hammer is also sized and shaped to curl under a backhoe loader boom for easy transport without boom damage or interference with traffic.

Hammer settings are pre-programmed in Cat excavator tool-control systems, allowing oil flow and pressure to be fully adjustable, to facilitate set up. Actual working hours for the hammer can be recorded for routine maintenance scheduling. The H80E/Es is designed for easy serviceability and incorporates rebuild features that lower life-cycle costs.

Atlas Copco MB 750 hydraulic breaker reduces life-cycle cost, boosts percussive performance

Reducing the lifecycle cost of machinery and tools is a major market demand these days. Atlas Copco's latest addition to the medium breaker range, the MB 750, matches this challenge and furthermore convinces with up to 54% more percussive performance compared to its predecessors.

More percussive power does not mean that the breaker adds extra weight to the carrier. Using a 1,653 lb (750kg) breaker and a 10t to 17t carrier for jobs that typically use larger equipment reduces both the investment cost and fuel consumption. Together with increased productivity these are the main contributions to reduced lifecycle cost.

The high operational efficiency of the 3.9 in (100mm) diameter MB 750 arises from a combination of oil and gas power and energy recovery by utilizing the recoil effect in the best possible way. This boosts the output power of the breaker without increasing the hydraulic input power of the carrier, which results in less fuel consumption during operation. That makes the MB 750 ideal for secondary breaking, demolition, excavation and trenching, tunnelling, and special applications such as underwater—any job that calls for a hydraulic breaker with a powerful, efficient and reliable design.

As with other Atlas Copco breakers, the MB 750 offers highly effective noise and vibration damping, with guaranteed sound power level of 118 dB (A), measured according



Directive 2000/14/EC. Atlas Copco's VibroSilenced system isolates the percussion mechanism acoustically from the external guide system. Moreover, the VibroSilenced system helps prevent damaging vibrations that could be detrimental to both the carrier and the operator.

A new feature on the MB 750 is the double retainer bar system, which maximizes the service of the tool and retainer system. Extra long retainer bars provide a maximum contact surface to the tool and the lower hammer; they can be used on both sides for extended service life. Double retainer bars offer higher wear resistance than a retainer pin and are a reliable and proven locking system for the working tool.

The MB 750 is optionally available with the patented DustProtectorTM II, a two-stage sealing system with coarse and fine wipers that reduce the penetration of abrasive dust into the lower hammer part. DustProtectorTM II also keeps the lubricant around the wear bushing for a longer period of time, lowering grease consumption. The system reduces wear on the bushings and the hammer and protects against damage.

New PRO hammers from Rammer

Following the successful launch of the 4099 PRO, Rammer is pleased to announce two new PRO hammers that are as innovative as they are tough. The Rammer 2577 PRO and Rammer 5011 PRO are hammers suitable for carriers in the 21t to 32t range, and 43t to 80t range respectively. They have been specifically designed to work horizontally and undertake tunneling duties in hard rock, being purpose-built to withstand high levels of dust.

The 4,277 lb (1,940kg) Rammer 2577 PRO and the 11,685 lb (5,300kg) Rammer 5011 PRO are both based on the field proven Rammer 2577 and 5011 hammers. Both possess customer-focused features as an Idle Blow Protector that works regardless of working mode to provide greater levels of protection. Additionally they are equipped with long-life, high-tension VIDAT tie rods for improved reliability, extended service periods, and lower operating costs.

These standard Rammer features are backed by a range of enhancements that help the PRO range to withstand extreme working conditions. Customers choosing the PRO range will be able to benefit from a sealed housing structure that prevents the ingress of dust and dirt, thereby extending the working life of both the hammer and the tool. A top cover plate has sealed through apertures for stump hydraulic hoses, and features sealed hose connections for grease, air and water.

The PRO hammers possess a sturdy housing design and wear-resistant wear-plates that make them perfect for horizontal working duties. This includes such demanding applications as tunneling. To match the demands of the extreme applications in which they will work, the Rammer PRO range models are also offered with special tools for horizontal primary breaking which have been designed to work with a broad range of auxiliary systems.

For customers working in tunneling applications, Rammer has put together a full package of auxiliary



systems and solutions: the AGW unit (Air Grease Water). These have been designed to protect the hammer from the demands of this extreme application, delivering lower owning and operating costs, thereby making the Rammer PRO range the toughest breakers in the world.

The unique AGW unit comprises of some special features designed to aid tunneling activities. These consist of the proven Ramair air flush system that prevents potentially harmful dust ingress; the Ramlube I automatic lubrication system to ensure consistent and thorough greasing; and the water jet dust suppression package to minimize the creation of dust during breaking.

Hydraulically-actuated and requiring no additional power supply, the AGW Unit is easy and safe to install and maintain. It helps ensure that all Rammer PRO hammers are protected and productive throughout their working life. All these key features are backed by long-life, wear resistant, genuine Rammer parts that are readily available from our global dealer network.

Meet Chicago Pneumatic's RX 30 and RX 38 Breakers

Ideal for heavy industrial demolition, building renovation, road construction, rock excavation, trenching, mine, and quarry applications, Chicago Pneumatic's RX 30 and RX 38 are powerful enough to handle the most difficult applications, but can also be transported with ease. The RX 30 and RX 38 feature innovative hybrid gas/oil technology, and fewer moving parts for lower maintenance.

Noise- and vibration-dampening technology, plus a highly efficient internal control valve, make RX breakers some of the quietest and most powerful on the market today. Featuring a service weight of 4,850 lb (2,200kg), the RX 30 is ideal for a wide range of applications. With an impact rate of up to 620 bpm, the RX 30 delivers dependable power and performance for demolition, construction, and mining. The RX 30 is specified for carriers with a capacity of 25t to 40t.

The RX 38 boasts an impact rate of 590 bpm to effectively increase job site productivity. With a service weight of 5,732 lb (2,600kg), the RX 38 is strong enough to handle the roughest applications when used with carriers with a capacity of 25t to 43t.

Optional equipment is available for breakers in the RX 14 to RX 53 range, including CP Auto Lube, an automatic breaker mounted lubrication system for



extended life of the bushing and working tool. The RX also includes a vented percussion chamber that vents dust away from the tool holder extending bushing and tool life.

Montabert's greasing solutions

One of the keys to increasing the lifespan of the major wear parts is optimum greasing. Montabert breakers



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The Husqvarna PG 820 RC remote control planetary grinder offers very high productivity, powerful performance, and outstanding ergonomics. The remote control is key on this machine. It enables the operator to move around the jobsite, correcting hosing, moving the dust collector, inspecting the floor, and preparing the next set of tools. This leads to increased productivity and less fatigue on the operator. The remote control unit can optimize the grinding parameters to assure quality for a specific application, enabling consistent operation and results even when changing operators. To learn more or to request a demo, visit www.husqvarnacp.com.

HUSQVARNA PG 820 RC

Power, kW (hp)	17.4 (13)
Voltage, V	380-480
Rated Current, A	32
Grinding width, in (mm)	32 (820)
Grinding pressure, lbs (kg)	664 (301)
UL & CSA approved	



Upgrades from Indeco

Italian manufacturer of breakers, Indeco has upgraded the hydraulic system on their breakers so that the HP series has now also become Fuel Saving (FS). Compared to other manufacturers' models of equivalent weight and performance, Indeco breakers require less oil per minute and lower operating pressure. And as using lower hydraulic power means reducing the rpm on the carrier, this leads to fuel savings of up to 20%, while ensuring optimum performance



and maximum productivity. This advantage is even more clear-cut if the Indeco breakers are compared with gas/oil-powered products of similar sizes. That's quite a plus, both for the environment and for the users margins, which grow in proportion to the size of the breaker that is used. All of the new breakers in the Indeco HP range will be displaying the FS badge. All of the silent demolitions and material handling products have been given the same rotation mechanism.

can be equipped with automated greasing stations. These include a cartridge-fed model, mounted on the breaker and a bigger model, mounted on the carrier. For Montabert's heaviest breakers, the greasing station can hold enough grease for one week before needing refill. Montabert has also worked with grease manufacturers to offer a dedicated and efficient, the BreakerLub.

Hydraram

Hydraram FX-series Breakers maximize power and production with less cost, maintenance. Years of user field experience combined with the drive of Hydraram's engineers have resulted in the development of the latest powerful FX-Series hydraulic breakers. Hydraram believes that hydraulic breakers must be powerful in operation, and simple in construction. For that reason, FX-Series breakers have fewer moving parts to improve reliability and productivity, while also minimizing maintenance and downtime. Fourteen models of Hydraram breakers are now available for carriers ranging from 0.8t to 100t. Weights range from the 100kg model FX-10 to the 7,000kg model FX-800. All Hydraram breakers include standard features such as sound- and vibration proofed housing, air connection for underwater demolition, and a connection for central lubrication.

Bigwood's Four Quick Steps For Better Breaker Maintenance



Greasing before and during operation also is part of proper breaker maintenance that reduces equipment wear.

Peter Bigwood, Vice President of Sales and Marketing, Brokk Inc., offers some tips for keeping breakers up and operating.

The hydraulic breaker attachment—one of the most common attachments for a remote-controlled demolition machine—generates as much as 1,500 lbft (2,034J) at its tip. Typical wear and tear is expected, which is why keeping up on breaker maintenance is vital to ensure optimum performance on the jobsite.

"Operators often overlook breakers, so they might not receive the proper time and attention they deserve in a maintenance regiment," says Keith Becker, managing member of Becker Equipment Company LLC., Ohio, USA. "To get the most out of their investment, operators should consider the breaker as another piece of equipment with its own service schedule rather than a simple attachment, such as a bucket scoop. While the breaker requires the machine's hydraulic system to provide the pressure to run, it is just as important as the machine itself and requires regular servicing."

Ready to begin servicing, but not sure where to begin? It's simple. Take the time to follow these four steps you'll be on your way to increased uptime and maximum breaker life.

Step One: Choose the Right Grease

Not all grease is the same. Look for a chisel paste that can withstand temperatures as high as 450° F (232° C). Keep in mind, if grease is running down the tool, it's most likely not correct. Proper greasing minimizes metal-on-metal contact to prevent the tool from overheating, which can prematurely wear tool steel, damage bushings, and ruin hydraulic seals.

Using standard grease may save a little money now, but could eventually cost time and far more money by requiring more frequent greasing. And if the tool steel isn't properly lubricated, there will surely be added costs in tool steel replacements.

Atlas Copco, the OEM of breakers paired with Brokk machines, offers a durable, molybdenum-based chisel paste. This paste contains small copper and graphite particles that roll up like ball bearings between the tool steel and working bushing. The paste is also more viscous than standard lubricants, which allows it to re-

main between the steel and bushings and provide better lubrication for longer periods than using grease alone.

Step Two: Lubricate Appropriately

Once you have the right grease, be sure you are using it correctly. Greasing before and during operation also is part of proper breaker maintenance that reduces equipment wear. To lubricate a breaker, apply pressure on the tool steel to verify that it is pushed all the way into the breaker. Inject grease into the breaker's lubrication points using a grease gun, until it exits the bottom of the breaker. This ensures the void between the bushings and the tool steel is filled and new grease displaces any remaining grease that might contain dust or debris. Some manufacturers recommend adding grease every two hours when a breaker requires manual greasing or if the operator sees shiny slivers of metal on the tool steel. Some breakers have automatic lubrication systems that keep tool steel properly lubricated, but those systems still need daily inspections to ensure there is adequate grease in their vessels.

Step Three: Check the Bushing

Even with the best lubrication, replacing the wear bushings is inevitable. Measuring bushing wear is essential to maintaining a reliable breaker, and you don't always need to take apart your machine to do so. Instead, try to slide a .19 in (4.76mm) drill bit between the tool and bushing. Typically, about .25 in (6.35mm) of space is the wear limit for a bushing. A good way to estimate is if the drill bit fits between the tool and the bushing it may need replacing. However, having a mechanic evaluate the bushing is the most accurate way of assessing wear bushings.

Step Four: Monitor Nitrogen Levels

Many breakers feature nitrogen gas in the back-head as a cushion and for increased power. This minimizes the power demand on the carrier's hydraulic system and ensures consistent, high-impact energy. It's important to maintain and fill the nitrogen reservoir as needed for consistent power output.

Be sure to conduct a visual inspection of the breaker before every use, and a thorough examination weekly to ensure everything is working properly. This all adds up to increased uptime and extended breaker life.



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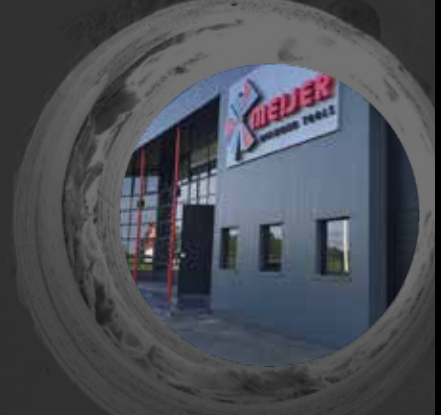
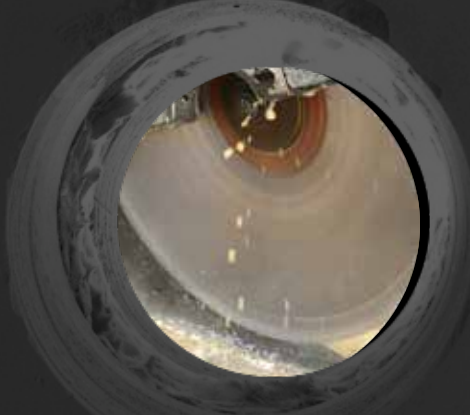
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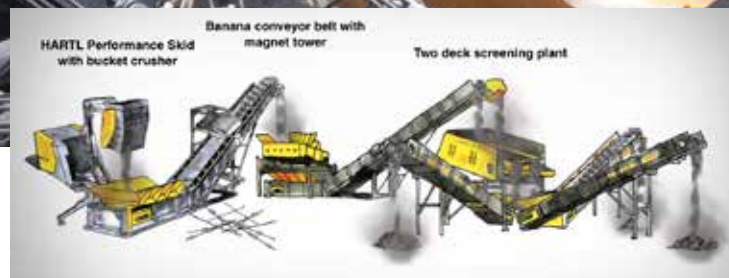
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Hartl Crusher Offers New Products at Bauma



Hartl Crusher launched two new product lines at bauma 2016 in Munich – the Hartl Performance Skid and the Hartl Modular Solutions. The Hartl Performance Skid is a highly flexible remote controlled drive unit and docking station for all hydraulic processing attachments, such as bucket crushers, screeners, shredders etc. It optimizes the production rates of the attachments and offers high energy efficiency and minimal operating costs.

The result is a mobile crushing solution that approaches the performance of track mounted crushers. What's more, the crushing unit can be detached from the skid

frame and mounted on the excavator boom for "solo" jobs. The continuous crushing action in combination with the skid nearly doubles the performance of the excavator driven by eliminating the "boom swing cycle." Attached to an excavator with the Performance Skid, the discharge height of the crusher can now be adjusted. Low ceiling,

cramped spaces, as in underground coal mines can benefit from this advancement. Also, the tipping function is operated by remote control.

The Hartl Modular Solution consists of several processing modules that can be combined according to the needs of the customer. The modular solutions can be used for processing natural rock or recycling. The modules are compact and can be transported and set up easily, eliminating the high transport cost associated with flatbed trucks and special permits.

www.hartl-crusher.com

Silent Demolition in Brazil



The traditional, nearly 100-year-old Colégio Loyola Catholic school in Belo Horizonte, Brazil had to undergo serious concrete demolition on its façade recently. The work was carried out by the Brazilian controlled demolition company Demolição Remota.

The need for the project arose following an incident at one of the school's 39-ft (12m) high four-story buildings. One of its 100 2,600-lb (1,200kg) reinforced concrete brise soleils located on the main façade collapsed. A brise soleil is an architectural feature of a building that reduces heat gain within the building by deflecting sunlight.

Movement in the house foundation

A civil engineering company contracted to evaluate the cause of the brise soleil's detachment discovered that the entire building showed oscillation on the thirteen main pillars of the main façade, as well as on six more pillars of the back façade. It was decided to secure the thirteen pillars of the main façade by means of a metallic structure. But to allow the pillar to be secured, it would be necessary to remove of the remaining 99 concrete brise soleils.

The removal work had to be carried out during school hours, so as to not disturb lessons for the 2,600 students. The school together with the civil engineering contractor had to

search the market for a company that could remove the brise soleils in the shortest time possible, yet keep everyone safe.

The fast silent solution

The Belo Horizonte company Demolição Remota initially suggested that the demolition work were carried out only at night and during weekends to avoid any inconvenience caused by impact and noise. But to carry out the work in shortest time Demolição Remota offered an alternative strategy that surprised both the school and the contractor—remove all 99 remaining brise soleils at daytime, without any impact or noise that could possibly disturb the students and teachers.

After presenting its proposal, Demolição Remota was contracted and the work started right away. Five workers were assigned to demolish the 99 12.1x3.6x.5 ft (370x110x13 cm) brise soleils by using Tyrolit/Hydrostress hydraulic crushing equipment. Two Husqvarna K-2500 hydraulic power cutters were used as well.

The Tyrolit/Hydrostress crushers allowed the demolition of reinforced concrete structures by means of high force crushing, without any impact and noise. In order to avoid the traditional diamond blade cutting noise during the concrete cutting, the project team utilized 16-in (152mm) silent body discs specially developed by local manufacturers.

Without any interruption of the school routine, 125 tons of concrete were fully removed in three weeks' time during weekday working hours (8:00am - 5:00pm). The school was extremely satisfied with the results, especially the work execution, which was carried out without any inconvenience to regular activities and 100% accident-free.



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What?

Trade shows offer no products. But how important are they to the Americas?



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Why are some people against the change?

Reasons vary, but the potentially high cost of implementation tops the list. Some people think that better enforcement of the current levels of allowable crystalline silica would be more effective.

Where do you find crystalline silica?

It is released during the production of things like roadways, concrete products, ceramics, metal-casting molds and artificial stone countertops.

What industries would be affected?

OSHA says it would affect around 2.2 million employees, the majority of whom are in construction.

What is crystalline silica?

In a word, dust. But the type OSHA is concerned about is respirable crystalline silica and it's dangerous. It is made up of minuscule particles created by sawing, grinding or crushing materials such as stone, concrete and brick.

Why is it dangerous?

Inhaling these tiny particles can put people at risk for developing the lung disease silicosis, as well as lung cancer, chronic obstructive pulmonary disease and kidney disease, OSHA says.

How is it measured?

Currently, OSHA sets permissible exposure limits (PEL) for crystalline silica based on complex formulas. The new regulation would be measured in micrograms of silica per cubic meter of air ($\mu\text{g}/\text{m}^3$).

What are current regulations?

The current PEL for quartz, the most common type of crystalline silica, is the equivalent of $250 \mu\text{g}/\text{m}^3$ for the construction/shipyard industries and $100 \mu\text{g}/\text{m}^3$ for general industry. These numbers are averaged across an eight-hour day.

What has changed?

The new regulation sets the PEL at $50 \mu\text{g}/\text{m}^3$ averaged across an eight-hour day for both industries and all materials.



**Pullman
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**YOUR GUIDE TO OSHA'S
PROPOSED REGULATIONS
ON CRYSTALLINE
SILICA**



Construction trade shows are memorable for different reasons, whether they're focused on one or more product segments, or located with after-hours attractions to provide contractors with that coveted "change of scenery." But in terms of sheer size and variety of equipment, nothing beats bauma.

The World's Largest

Formally known as the International Trade Fair for Construction Machinery, Building Material Machines, Mining Machines, Construction Vehicles and Construction Equipment, bauma is the world's largest construction industry trade fair. Held every three years since 1954, the show sprawls across the Neue Messe München exhibition center outside Munich, Germany, offering visitors a look at every conceivable project from skyscraping cranes to microtunneling technology, and everything in between.

This year was no different. During April 11-17, approximately 580,000 visitors—a record—from 200 countries came to Munich to see a global medley of tools and equipment offered by 3,423 exhibitors—nearly two-thirds of which are based outside Germany. These attributes naturally make bauma a non-stop font of product news for every construction category, as evidenced in the pages of PDA and other industry trade publications. And given that bauma is at least three times the size of its triennial U.S. counterpart Conexpo, few manufacturers opt to pass up that kind of industry spotlight.

"Because of economies of scale, manufacturers—and not just those in Europe—will bring their best to bauma," says Peter Bigwood, Vice President of Sales & Marketing for Brokk, Inc., which rolled out the new 280 remote control demolition machine at bauma, along with the official introduction of its 120D diesel model that was previewed at January's World of Concrete. So eager are some manufacturers for the attention bauma affords, Bigwood adds, "there have been product launches that didn't start shipping until the next bauma."

Nevertheless, many contractors, particularly those in North America, may choose to thumb right past the bauma announcements in search of news that applies closer to home. After all, the reasoning goes, World of Concrete and Conexpo are geared to the U.S. market. Why not wait and see what they have to offer?

To be sure, the location of a trade show is usually a strong indicator of the market-specific features that will be found on various product types.



Alfred Landl, Head for Tyrolit's Construction Division (left) and Wolfgang Wiefler, Head of Marketing and Product Management Construction shared information about a number of new developments from Tyrolit.



It is not only Bauma, beer and Schweins Haxe that attract people to Germany in April every third year. It is also asparagus time.

"European countries, for example, have strict regulations regarding exhaust fumes or product safety, and they tend to prefer new technologies, especially when it comes to high-frequency machines," says Alfred Landl, Executive Vice President of Building Industry, of cutting, grinding, and polishing manufacturer TYROLIT Group. "Customers from the U.S., however, prefer hydraulic machines because of their reliability and uncomplicated maintenance." For equipment with diesel engines, of course, emission requirements come into play in the design phase.

"Some countries, such as the U.S., have enforced Tier 4 Final emission standards on all diesel-powered engines, which means engineers need to take into account the extra components needed to meet those requirements," says Vijay Palanisamy, Atlas Copco's product manager for pavers, mining, rock excavation, and construction. "On the other hand, there are some countries that don't have access to the ultra-low-sulfur diesel fuel required to operate Tier 4 Final engines, so they need lower-tier models."

Other types of products spotlighted at overseas trade shows are available everywhere. Atlas Copco We introduced several new pieces of equipment at Bauma, including our next generation of bucket crushers — the BC 2500 and BC 3700; a six-model Steel Cutter line for Europe and North America. Then there are differences among the buyers themselves. Fredrik Akermark, executive vice president for Pullman Ermator Corporation USA, adds that U.S. contractors "tend to put a greater emphasis on price," while at the same time demanding value for every penny they do spend. For other product categories regularly highlighted in PDA, geographic market differences are less distinct.

"Everything we design is focused on hardiness," says Catherine Konigk, head of marketing for floor systems manufacturer HTC Group. "The tools are quite broad in range, and can adapt easily to different market."

Joe Taylor, Husqvarna's Director of Marketing for the Amer-



Above a new crusher bucket from Atlas Copco and to the left Brokk's booth with a number of new products.



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Very satisfied with the outcome of the Bauma show: from the right President of Superabrasive, Inc, Nikolay Nikolaev, Sales Director European operations, Svetlana Peneva and Sales and Product Manager German speaking markets, Fredrik Andersson.

icas adds that the company's products reflect a close integration between the markets. "Very few are exclusive to a particular market," he says.

Landl agrees, which is why he considers Tyrolit's bauma 2016 introductions—the "world's lightest wall saw" WSE811**, the first easy-to-use dry drilling system, and new, low-weight handsaws and coring bits—relevant to distributors regardless of location, even the U.S. "It is probable that local adaptations might have to be done, but basically they can be of interest for any concrete cutting business, no matter where they are located," he says.

And of course, the top priority for any contractor is to be successful and profitable while protecting their reputation. "The key to that, says Rich Elliott, Atlas Copco CTD Product Manager, is "choosing equipment that allows them to complete jobs successfully and with high-quality results. That equipment must also be durable, easy to maintain and last a long time, which is extremely important for equipment on harsh jobsites, from construction to demolition projects." Konigk puts it a little more succinctly. "Basically," she says, "it has to work."

Window-shopping the world

It seems, then, that languages and locations aside, concrete contractors have far more in common from one market to the next than they may realize.

"They have same questions and concerns," observes Joe Taccogna, Senior Product Line Marketing Manager for Portland, Oregon-based concrete cutting saw manufacturer ICS Blount. "They're interested in productivity, safety, and cost of use."

So where a manufacturer elects to debut a product may have more to do on its overall marketing strategy (details of which are rarely shared with the media) than addressing the needs of a distinct group of users. At bauma, for example, ICS introduced its FORCE3™ Series Diamond Chains to the European market.

"If it takes off here, we'll bring it to the U.S. market, says Taccogna, adding that while more North American contractors access our products through the rental market than those in Europe, "we still watch for how a product is received, and tailor products to other markets' needs accordingly." So if all contractors are pretty much alike, they should be interested in the same kinds of products, regardless of where they're released, or if they are not yet available locally. Jennifer Stinsen, Manager, Marketing Communications for UK-based equipment manufacturer JCB, explains that equipment introduced at shows overseas such as Bauma are often a precursor to what may appear at subsequent events.

Similarly, JCB's bauma product introductions included a mix of Europe-only machines, such as the Hydradig wheeled excavator, but also a new contractor line of breakers, our new range of





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The new Husqvarna chain saw modul for wall saws to prevent overcuts.



During Bauma Husqvarna held a press conference explaining about their new products displayed at the show. During the whole week a number of product demonstrations were also held outdoors. From the left Husqvarnas's President Kai Wärn and Heda of Husqvarna Construction Products division Henric Andersson. Henric replaces Anders Ströby who retired about a year ago.

next generation compact excavators and wheel loaders that are immediately available to the U.S. market. The company's 540-140 Telehandler will be available later this year. "Understanding equipment and technologies that may be on the horizon allows one to be more strategic in the timing and replacement of their equipment," Stinsen says. "If the new technology or equipment has features that don't appeal to them, they may opt to buy now. If the technology or features are of interest, they may hold off on acquisition until it becomes available in their home market."

What's more, many of the same regulatory, safety, and operational issues that are driving the development of products for European markets are gradually taking hold on this side of the Atlantic, contractors. Some, such labor availability are already evident, which is why the more ergonomic, less stress-inducing equipment designs of Europe are finding their way to the Americas. "Who wants to run a jackhammer all day," Bigwood asks.

The close quarters of many European demolition projects

have driven the development of compact equipment that is becoming more appealing to Western Hemisphere contractors. Atlas Copco's new 55 lb (25kg) R TEX handheld breakers, introduced at bauma and available in North America, can hit as hard as breakers of 66 lbs (30kg) or heavier and require just 37 cfm to operate. The low air requirement allows contractors to use multiple breakers with a compact compressor, saving fuel costs and boosting productivity. Because U.S. contractors can't afford to give up efficiency in when elbow room is limited, "they too are looking for smaller equipment that can squeeze into smaller spaces or reach to higher levels, and have the versatility to run multiple tools." And given the ever-increasing pressure to retain a competitive edge, knowledge about products and technologies introduced in foreign markets can only help a contractor stay at least a step ahead of its competition.

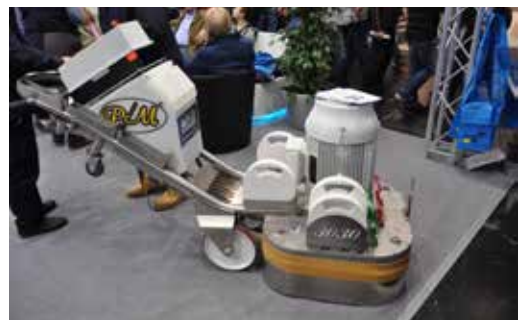
"The contractors who are good have work," Taylor agrees, "and they're the ones who pay attention" to equipment news, regardless of where it comes from. Nor are oceans and air miles an impenetrable barrier to acquiring what a North American contractor may deem an ideal product for his or her business.

"You can put pressure on current supplier to make incorporate those features, or even contact the overseas manufacturer directly," Bigwood says. So while a contractor may not have the resources to globetrot from show to show, keeping up with the news from overseas is the next best thing to being there. And if one's budget does permit an occasional visit to a bauma or other non-U.S. event, the experience will likely prove worth the expense.

"Dealers, manufacturers and others allied to the field all benefit from trade shows," Stinsen says. "Exposure to new trends and technologies introduced at these shows help move the industry forward."



Three happy guys in the Tyrolit/Diamond Product booth at Bauma.





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Manezinho the “Implosionist” of Brazil

He has imploded over 150 buildings in Brazil over the years and is the country’s most well known implosionist. His work is well covered by Brazilian media which ensures that this technique is safe and environmentally effective. What’s more, Manezinho has also one of the two largest vinyl record collectors in the world with over 1.5 million vinyl records.

Text: Luiz Carlos Beraldo
Photos: © Manezinho of Implosion

The informal and friendly style is his trademark. From the first contact, he is humorous and simple, does not flaunt the grandeur of his professional experience and his role in the history of demolition in Brazil. But he was not the first to perform an implosion in the country. This merit belongs to his mentor, Hugo Takahashi, the engineer responsible for the 1975 implosion of the Mendes Caldeira building in downtown São Paulo in 1975—the first urban implosion in South America. But no one to date, even Takahashi, has held more implosions than “Manezinho” in Brazil.

The “Manezinho of Implosion” we’re talking about was christened Manoel Jorge Diniz Dias. In addition to being one of Takahashi’s assistants, Manezinho studied at the same school and followed in the footsteps of his mentor with the passion of a boy born on the Day of St. John (June 24) also called “fogueteiro saint.” (In the Brazilian Catholic tradition, this joyful anniversary is celebrated with dances on firewheels, many fireworks and explosives, plus warm drinks.)

Born on the Day of St. John

During his childhood, Manoel Jorge spent many Day of St. John festivities playing with small bombs that detonated gunpowder in empty cans. Other children did the same thing, of course, but Manoel Jorge was one of the few to take it seriously to make it his career pursuit, eventually earning his more familiar nickname of Manezinho of Implosion.

Soon after graduating from University of São Paulo as an engineer in 1979, Manezinho worked on construction of major infrastructure projects such as Tucuruí in the state of Pará and the Steel Railway, which connects Belo Horizonte with Rio de Janeiro. The railway project was considered one of the most



The federal prison Carandiru in São Paulo being imploded by Manezinho.



Manezinho has also imploded a large number of sports stadiums in South America during the years.

difficult projects in the country mainly due to the topography that led to the construction of more than 100 bridges and tunnels. One of them, Tunelão, is the largest railway tunnel in the country with a length of nearly 5.5 miles (8.7km).

“This work was important to gain experience and even a certain intimacy with the explosives,” Manezinho recalls. He also worked with Hugo Takahashi in implosions throughout Brazil, until Takahashi’s death in 1990.

“He was delegated the coordination work to me, and I ended up participating in virtually all his major works,” Manezinho says.

More than 100 urban implosions

There is no accurate accounting, but Manezinho of Implosion guarantees that he has led more than 100 urban building implosions throughout Brazil. He’s also directed 50 other implosions of bridges, chimneys towers, water tanks and factories located outside urban centers. One can say without error, that almost every major implosion occurred in Brazil counted on his participation.

Asked to name his most memorable projects, Manezinho lists the implosion of the CESP building on Paulista Avenue in São Paulo (1986), the prison of Ilha Grande in Rio de Janeiro (1994), the Palace II building (1998) in Rio de Janeiro the penitentiary Carandiru (2002) in São Paulo, the stadium Fonte Nova (2012) in Salvador, and a building on Avenida Berrini (2013) in the center of São Paulo.

“Builders and breakers—well, almost everyone who needs something imploded—usually call on me,” Manezinho says. “Many hire me to participate as coordinator of all work, or just as a consultant to verify that their job is well done. I don’t have to publicize what I do, because my work brings new customers.”



Once Brazil's biggest prison remotely located on the island Ilha Grande in Rio de Janeiro was imploded by Manezinho.

Benefits of Implosion

Manezinho explains that "the implosion is a method of demolition should be used in specific conditions that require rapid results to generate large changes in the urban setting. Or in more remote areas, where there are works of art, towers, or other large buildings that need to be removed with some urgency, because there is risk of collapse or short deadlines for the start of new works in the same place."

The explosion, the crumbling building, and the cloud of smoke covering the whole surroundings—this is the image we have of an implosion. The result appears to be chaos at the site, with a cloud of dust covering a huge area, and a pile of concrete rubble and steel to be removed with hard work. To the eyes of a layman, the operation seems to be something environmentally questionable. Manezinho counters with several attributes that make implosion a better option than other demolition.

"When there are large structures to be removed in a short time, there is no better option than the implosion," he says. "Despite the great cloud of dust, the implosion is completed in one day, and the remaining material is removed more quickly and with less risk to workers than if the building were demolished gradually. Surrounding residents experience much less disruption to their lives, and fewer days of dust, machinery and construction noise."

Manezinho goes on to say that implosion is a complex technical, but extremely controlled process.

"As in any work, we respect standards for all emissions, noise, and environmental protection. Despite the implosion, we do everything within permitted levels. The displacement caused by the explosion is monitored by cameras installed at various locations, and never exceeded safe limits."

And where once the rubble simply went to a landfill, the material is now sorted and recycled.

"So the environmental outcome is as good or better than other form of demolition," he says.

The hotel fell, but not a nut from the coconut tree

On the other hand, the complexity of implosion is unparalleled. It begins with the involvement of Civil Defense and should generally rely on support from authorities like city hall, traffic agents, energy companies, water and sewage, fire department, etc.

"The participation of media outlets is critical, as it is essential to the work of communication and support to people in the affected region," Manezinho says. "We make a record of the people and take care of all of them. After all, an implosion is something good to watch on TV, eating popcorn in a spectacle few seconds. But when this happens next to your house or a few

meters of your apartment, it is different. When there is nearby homes, we do a careful job of information and support to the entire population, so that no one is harmed."

In 30 years most of Manezinho's work has taken place in different regions of Brazil. But he has also worked on explosions and implosions in Argentina, Ecuador, Peru, and Angola. On its official website Manezinho collects stories of his work, with press clippings and photos of the main demolitions. Some of them involved betting, as the demolition of the Hotel Stelamaris building in Salvador, in January 1998. In that project, a coconut tree about 35 ft (6m) from the building was to be preserved. Others had their doubts it could be saved, so Manezinho bet a case of beer that no coconuts would fall from the tree during the implosion. A camera monitored the coconut tree during the implosion verified that the tree had remained stable, and Manezinho won the bet. There were many other bets as well.

"The implosion of the factory Mannesmann in Sao Caetano do Sul in 1994 was the first time we put a camera on a building to evaluate the behavior of explosive charges in an implosion," Manezinho recalls. "The producer believed that the camera would be destroyed, so I bet we would get preserve the equipment. The was a case of beer and the camera as a trophy. I won the bet, and still have that camera today."

Implosions of the vinyls and antiques

Besides implosions, Manezinho has also been a lifelong collector. He's become one of the largest vinyl record collectors in the world, with a collection of more than 1.5 million units. It was only two years ago, though that another Brazilian, José Roberto Alves Freitas, surpassed Manezinho, with his own collection of 4.5 million vinyl records. Nevertheless, Manezinho's "Big Vinyl House" in the Mooca neighborhood is one of the top 30 sights city of São Paulo, which is considered the "Capital of the Brazilian Vinyl."

In addition, Manezinho has also collected antiques of all kinds, including clothing, 5,000 pictures, 200,000 books, key chains, lighters, watches, pipes, pens, and chandeliers, among others. His main source of income are the implosions, while philanthropic activities are self-financed and maintained with the help of a team of 12 employees.

"At first it was just a hobby, but over time, these public became interested in the collections," he says. "Now, they generate their own income, and have become self-sustaining."

That's not the only way the public benefits. During blood drives, for example, Manezinho rewards donors with a vinyl record, an incentive that helps boost participation.

www.manezinhodaimposao.com.br



In this house in São Paulo Manezinho keeps his huge LP collection.



Once a young implosionist posing in front of a pile of rubble.



A building in central São Paulo being knocked down.



Manezinho da Implosão

Ele já implodiu mais de 150 edificações

O homem responsável por quase todas as implosões já mostradas pela mídia no Brasil garante que essa técnica é segura e ambientalmente eficaz. Além de implosões – já conta com 150 em seu currículo – ele também é um dos dois maiores colecionadores de discos de vinil do mundo, com mais de 1,5 milhão deles.

Texto: Luiz Carlos Beraldo
Fotos: Manezinho da Implosão

O estilo informal e amigável é sua marca registrada. Desde o primeiro contato, ele é bem-humorado e simples, não ostenta a grandiosidade de sua experiência profissional e de seu papel na história da demolição no Brasil. Não foi o primeiro a realizar uma implosão no país. Este mérito cabe a seu mestre, o engenheiro Hugo Takahashi, responsável pela implosão do edifício Mendes Caldeira, no centro de São Paulo, em 16 de novembro de 1975, a primeira implosão urbana da América do Sul. Mas ninguém até hoje – nem mesmo Takahashi – realizou mais implosões do que ele, no Brasil. O personagem desta nossa história, Manoel Jorge Diniz Dias, 59 anos, ou “Manezinho da Implosão”, como é conhecido, foi um dos principais assistentes de Hugo Takahashi. Mais que isso, era seu admirador, estudou na mesma escola e seguiu os passos de seu mestre com a paixão de um menino nascido no Dia de São João (24 de junho) chamado também de “santo fogueteiro”. Na tradição católica brasileira, a efeméride é comemorada com danças em rodas de fogueira, muitos fogos de artifício e explosivos, além bebidas aquecidas e muita alegria.

Nasceu no Dia de São João

Quando criança, nas épocas das festividades de São João a venda de fogos de artifícios era farta, e Manoel Jorge gostava de brincar com pequenas bombas de pólvora que detonava sob latinhas vazias para vê-las voar ao impacto da explosão. Não era o único. Mas foi um dos poucos a levar isso a sério ao ponto de se formar engenheiro com especialização em minas, desenvolvendo profissionalmente seu interesse por explosivos. Logo após se formar na USP, em 1979, trabalhou em construções de grandes obras de infraestrutura, como a hidrelétrica de Tucuruí, no Pará, e a Ferrovia do Aço, ligando Belo Horizonte ao Rio de Janeiro, considerada uma das obras mais difíceis do país devido principalmente à topografia que levou à construção de 30 quilômetros de pontes e mais de cem túneis, incluindo o “Tunelão”, o maior túnel ferroviário do país, com 8,7 quilômetros.

“Esses trabalhos foram importantes para adquirir experiência e até uma certa intimidade com os explosivos”, lembra. Também trabalhou com Hugo Takahashi em implosões por todo o Brasil, até seu falecimento, em 1990, estando sempre à frente das principais implosões coordenadas por aquele engenheiro. “Ele foi delegando para mim a coordenação, e acabei participando de praticamente todos os seus grandes trabalhos. Com seu falecimento, eu e a equipe demos continuidade ao seu trabalho”.

Mais de 100 implosões urbanas

Não há uma contabilidade precisa, mas Manezinho da Implosão garante que já esteve à frente de mais de 100 implosões de edificações urbanas em todo o Brasil, além de outras 50 implosões de obras como pontes, torres de chaminés, caixas d’água e prédios de fábricas, entre outros, localizados fora dos centros urbanos. Pode-se dizer, sem errar, que quase todas as grandes implosões ocorridas no Brasil contaram com sua participação.

Entre os trabalhos mais marcantes, ele enumera a implosão do prédio da CESP na Avenida Paulista, em São Paulo (1986), o presídio de Ilha Grande, no Rio de Janeiro (1994), o edifício Palace II (1998) no Rio de Janeiro, o presídio do Carandiru (2002) em São Paulo, o estádio Fonte Nova (2012) em Salvador, e um edifício na Avenida Berrini (2013) no centro de São Paulo.

“Construtores e demolidores, enfim, quase todos que precisam implodir algo costumam me procurar. Muitos me contratam para participar como coordenador de todo o trabalho ou apenas como consultor para verificar se o trabalho deles está sendo bem realizado. Nesse nicho que atuo, não faço propaganda, pois meu trabalho traz os novos clientes”.

Benefícios da Implosão

Para o engenheiro, “a implosão é um método de demolição que deve ser empregado em condições específicas que demandem resultados rápidos para gerar grandes transformações no cenário urbano. Ou em áreas mais remotas, onde há obras de arte, torres ou outras grandes edificações que precisam ser removidas com certa urgência, por haver risco de desmoronamento, por exemplo, ou prazos curtos para início de novas obras no mesmo local”.

A explosão, o prédio ruindo e a nuvem de fumaça cobrindo todo o entorno. Esta é a imagem que temos de uma implosão. O resultado parece ser um caos no local, com uma nuvem de poeira cobrindo uma área imensa, e um amontoado de entulhos de concreto e aço que deverá ser removido com muito trabalho. Para o olhar de um leigo, a operação parece ser algo ambientalmente discutível.

Manezinho enumera vários aspectos que tornam a implosão uma opção melhor que outro tipo de demolição. “Quando há grandes estruturas para se remover em curto espaço de tempo, não há melhor opção do que a implosão. Apesar da grande nuvem de poeira, é uma poeira que assenta em um dia e, assim como todo o material restante, é removida muito mais rapidamente e com menos riscos para os trabalhadores do que se o prédio fosse demolido aos poucos”, argumenta. “Para os moradores do entorno também, é muito menor o tempo de transtorno com remoção de entulhos, e muito menos dias de poeira e ruídos de máquinas e obras”.

“A implosão é uma técnica complexa, mas extremamente controlada. Assim como em qualquer obra, respeitamos normas para tudo. Emissões, deslocamento, ruído, etc. Apesar da implosão, fazemos tudo dentro níveis permitidos. O deslocamento provocado pela explosão é monitorado por câmeras instaladas em vários locais, e nunca ultrapassamos os limites seguros”.

“Hoje a remoção dos materiais é feita de forma a separar e classificar os materiais que são enviados para reciclagem ou reciclados no próprio local da nova obra. Então o resultado ambiental é tão bom ou melhor que outras forma de demolição”.

Cai o hotel, não o coqueiro

Em contrapartida, a complexidade é incomparável, pois começa com o envolvimento da Defesa Civil e geralmente deve contar com apoio de autoridades como prefeitura, agentes de trânsito, companhias de energia, água e esgotos, corpo de bombeiros, etc. “Também é fundamental

a participação dos órgãos de imprensa, assim como é imprescindível o trabalho de comunicação e apoio aos moradores da região afetada. Fazemos um cadastro das pessoas e cuidamos de todas elas. Afinal, uma implosão é algo bom de se ver na televisão, comendo pipoca, em um espetáculo de poucos segundos. Mas quando isto acontece ao lado de sua casa ou a poucos metros de seu apartamento, a coisa é diferente. Quando há residências próximas, fazemos um trabalho cuidadoso de informação e suporte a toda a população, para que ninguém seja prejudicado”.

Em 30 anos de atividades, a maior parte de seu trabalho aconteceu nas diversas regiões do Brasil, mas o engenheiro também trabalhou em obras envolvendo explosões e implosões na Argentina, Equador, Peru e Angola. Sobre seu método de trabalho, diz que é bastante versátil, podendo coordenar toda a obra com sua equipe de especialistas, ou indicar empresas de construtores e demolidores para o cliente escolher, ou ainda atuar como consultor em implosões realizadas por outras empresas.

Em seu site oficial (www.manezinhodaimplosao.com.br) Manezinho coleciona histórias de seu trabalho, com recortes de imprensa, fotos e vídeos das principais demolições realizadas. Algumas delas envolveram apostas, como na demolição do edifício do Hotel Stelamaris, em Salvador, em janeiro de 1998. Havia um coqueiro a seis metros do prédio, que deveria ser preservado. Como alguns questionavam, ele apostou uma caixa de cerveja que nenhum coco cairia da árvore durante a implosão. Uma câmera monitorou o coqueiro durante a implosão. E ele ganhou a aposta.

Houve muitas outras apostas. “Na implosão da fábrica da Mannesmann em São Caetano do Sul, em 16 de outubro de 1994, foi a primeira vez que colocamos uma câmera em um prédio para avaliar o comportamento das cargas explosivas numa implosão. Como a produtora acreditava que a câmera seria destruída, eu apostei que nós conseguiríamos preservar o equipamento, e aposta foi uma caixa de cerveja e eu ficaria com a câmera como troféu. Ganhei a aposta, e tenho a câmera com a poeira original da implosão até hoje”.

De implosões a vinis e antiguidades

Além de implosões, Manoel Jorge Diniz Dias também realiza palestras em que fala um pouco sobre os diversos aspectos de sua carreira e de sua vida. Inclusive do hábito de colecionar coisas, que o levou a se tornar o maior colecionador de discos de vinil do mundo, após adquirir um grande volume de discos antigos, totalizando mais de 1,5 milhão de unidades. O posto de primeiro colocado no Livro dos Recordes só foi perdido em 2014 por outro brasileiro, José Roberto Alves Freitas, que possui um acervo de mais de 4,5 milhões de discos de vinil.

Aos discos de vinil somam-se também as antiguidades de todos os tipos, incluindo roupas, 5000 quadros, 200 mil livros, coleções de chaveiros, isqueiros, relógios, cachimbos, canetas e lustres, entre outros. Seu “Casarão do Vinil”, no bairro da Moóca, é um dos dos 30 principais pontos turísticos da cidade de São Paulo que é considerada a “Capital do Vinil Brasileiro”, segundo Dias.

Sua principal fonte de renda são as implosões, enquanto as atividades filantrópicas são autofinanciadas e mantidas com ajuda de uma equipe de 12 colaboradores. “No início era só hobby, mas com o tempo e a estrutura que montei para conservar tudo, essas coleções foram despertando interesse no público e passaram a gerar renda, tornando-se autossustentáveis”, conta.

A grande disponibilidade de itens permite também promover campanhas de interesse público como oferecer um disco de vinil de brinde para cada pessoa que faça doação de sangue, durante determinados períodos.



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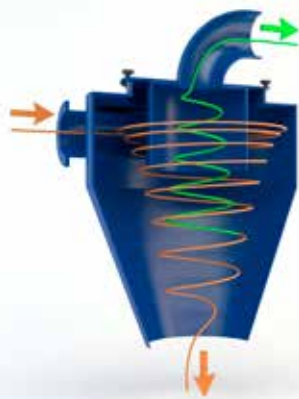
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Dusts

PDA's Michael Karlsson reports on new dust extraction equipment recently released on the market.



The Blastrac principle for large-size pre-separators.

Blastrac

The new range of Blastrac dust collectors is equipped with a high-efficiency particulate air filter, which guarantees a suction of 99.995% for the particles greater than 0,187m for a total safety when used on hazardous materials such as asbestos or lead paint. Blastrac has developed a full set of dust collectors equipped with HEPA filters, designed for jobs including remediation, decontamination, asbestos, and lead paint removals. Blastrac also has a Longopac system available that throws all the dust particles straight into a bagging system. This guarantees no dust or hazardous particles escaping into the environment. The new line of Blastrac dust collectors is completely HEPA-certified. To be even more efficient and safer, Blastrac has also developed split versions, composed of three units, the filter and safety filter unit box, both equipped with HEPA filter and the suction unit. The motor is outside the contaminated area. The safety filter unit is used to make the connection between the contaminated and the safe areas whilst the filtering unit is inside the contaminated zone. The industrial dust collector can be installed on the ground floor, while a BGS-250 and a BHG-1800 are working on the floors above.

The range of Blastrac dust collectors include:

- BDC-138HLP-UD (3kW)
- BDC-138H SPLIT (3kW)
- BDC-3160H (5.5kW)
- BDC-3160H SPLIT (5.5kW)
- BDC-15KW SPLIT (15kW)

Blastrac has also developed cyclone systems, which complement the original dust collectors, designed for jobs with a lot of dust. They have better dust capture and increase the lifetime of the dust collector filters. The Blastrac cyclonic pre-separators are available in two different sizes. They allow capturing between 80% and 90% of dust, increasing the lifetime of the dust collector's filters. The largest cyclonic pre-separator has the capability to support several machines concurrently.

Ronda

The range of the Danish Ronda heavy-duty vacuum cleaners has been extended with the addition of the Ronda 2800H. The new vacuum cleaner is available with a Longopac collection system, with a 1.4 ft³ (40 L) container for concrete dust, a 2.3 ft³ (65 L) container for light dust, and a combination with Longopac

bags in a container. An optional flap valve unit over the collection system ensures virtually dust-free emptying, as well as the ability to configure the machine for emptying during operation. If large quantities of fine concrete dust from a floor grinder are to be collected, an operator can empty the vacuum cleaner while another operator continues to work with the grinder. The Ronda 2800H has been designed to handle large quantities of fine dust, and is equipped with the multi-tube filter system that uses a cyclone effect to reduce the filter. The machine is also equipped with the Ronda filter cleaning system. The machine has three Green Tech motors, which can be switched on separately and is available for 230V and 380V. It has been designed for the construction industry and has a metal frame and equipped with large wheels, which make the machine suitable for transport between and on sites.



Right, the new 2800H vac from Ronda.

Ruwac

Ruwac has introduced the PV10 propane vacuum, the latest addition in its line of alternative power vacuums. Unlike most vacuum systems, the PV10 is completely independent of power cords, air lines, and electricity. Instead, the PV10 operates off a propane power source backed by a Kawasaki engine. Combined with a 12V electric start, heavy-duty casters, a fiberglass frame and handle, Ruwac has made it possible for to take this vacuum virtually anywhere. The



The new Blastrac BDC-15 kW Split set up.



Sucks!

PV10's foot-actuated drop-down dustpan and filter shaker system make cleaning hassle-free. A simple shake, step, pull and empty will result in a dust-free clean-up alongside prolonged filter life and improved vacuum performance. This vacuum is also equipped with a MicroClean filter that is 99.9% efficient at 0.5µm for longer vacuum cycles and less filter maintenance. For applications that require complete filtration, an optional certified HEPA module is available.

To the right the new propane vac, PV10, from Ruwac.

Oxysan

A relatively new method for the purification of dust-laden air is exposure to ionization, in which positive and negative oxygen molecules are created in the air. The molecules form larger particles that fall to the floor, and then can be swept, scooped, or sucked up. It takes a few minutes before the ionization to act, so the apparatus can be switched on for a while before chiseling, drilling or cutting begins.

Oxysan is built up of filters and ionization tubes. The unit's noise level is below 50 dB(A). The machine is equipped with a HEPA filter to keep the exhaust air purified. Hazardous micro particles are removed by ionization. All kinds of dust, concrete dust, asbestos fibers, wood dust, is removed and the effect

remains up to two hours after the machine is turned off.

The manufacturer says that air exchange in a building considerably reduces capacity, reducing the effectiveness of the damp conditions. Small amounts of ozone can be formed at ionization and is important that staff are informed and trained properly.

Oxysan, which is manufactured by the Swedish company Mpirum, is available in three sizes with capacities of 2,118-52,972 ft³ (60-1,500 m³), depending on the model and degree of soiling. The smaller 1000 model



Above the Oxysan ionization device.



Above a new large-size pre-separator from Blastrac.



Above the Blastrac split versions.



The new Blastrac BDC-3160H Split set-up.



Detail view of Oxysan.

is recommended for operation at painting and related grinding jobs, while the 2000 is made for construction and demolition jobs, and fire damage. The 3000 model is for bigger demolition jobs.

Pullman Ermator

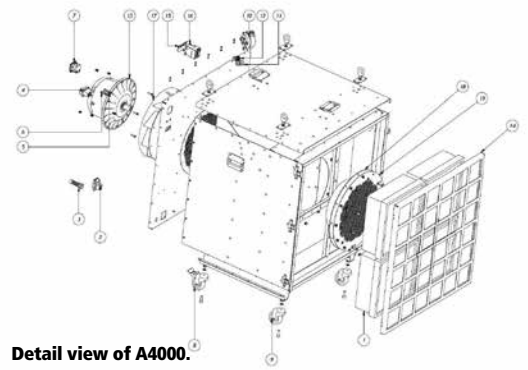
Introduced in 2015, the A4000 is designed for big jobs. With a capacity of 141,000 ft³/hr (4,000m³/h) it can handle work surfaces up to 2,691 ft² (250m²). The machine has a central exhaust at the rear where the discharge hose can be attached. It is equipped with disposable pre-filter and four H13 filters. Hepa filters are of the same kind as those of the A1000. The filter frame is mounted with hinges and buckles to make filter changes easy and quick. It is also easy to move when equipped with lockable non-marking wheels. It is equipped with a warning light when it is time to change the filter.

Pullman Ermator has also released some new accessories, including 5-in (125mm) and 7-in (180mm) flexible dust hoods that are quick and easy to assemble. The hoods fit the most common hand-grinding machines on the market, and come with several different connection adapters to suit every possible hand sanding. The 7-in (180 mm) dust hood has a fold-up edge to grind the adjacent edges and moldings.

Premium versions of both hoods with higher quality and durability are available.



The Pullman Ermator A4000 air purifier.



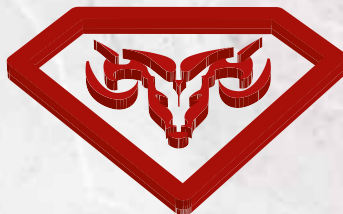
Detail view of A4000.



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Ground-Penetrating Radar is the Key to Concrete Cutting Safety

By Bruno Silla, GSSI

Whether it's retrofitting buildings to make them earthquake-proof or ADA-compliant, or remodeling existing structures to add capacity, it is essential to know exactly how to avoid hazards that may be contained within concrete. Concrete contractors are increasingly turning to ground-penetrating radar (GPR) scanning to know exactly where to cut and drill to reach vital building components and avoid necessary structural supports and conduit lines. Penhall Technologies, a division of California-based Penhall Company, has been using GPR to scan for concrete hazards in the U.S. since 2001 and in Canada before that.

"We've seen an increase in column reinforcement projects, where people want to add extra levels to a stadium, parking structure, or airport," said Penhall Technologies President Simon James. "In the past, they may have had to demo the entire structure and start over. Now because the engineer can avoid hazards within the concrete, they're able to actually calculate how much weight that column can bear with extra reinforcement."

James explains that until about 15 years ago, workers going in "blind" while cutting into existing structures often risked hitting live conduit.

"Now many industry experts recognize that cutting into these hazard types can be devastating if people do not scan first," he says. "GPR technology makes the project far safer and I consider its use to be a real game-changer."

The GPR process begins with the "scanner" technician visually identifying potential hazards, including looking for any structural signs that may signal a potential problem. For example, if there is a horizontal beam, there may be conduit along the floor. The scanners are also looking for other trades that may be doing something unsafe near the concrete cutting area and would try to eliminate the danger.

They also encourage all scanners to share anything new or challenging and to contact another scanner "live" to get a second opinion, especially when as-built drawings do not match GPR data — a common issue.

A large percentage of Penhall's projects are conducted using a handheld device that combines a screen and antenna in one unit. The equipment is small and lightweight, which makes it easily maneuverable. This is extremely important for ergonomics, as scanners can be on the job for up to 10 hours a day. (See Figure 1.)

When they need to get more granular

with the depth or for unusual spaces, technicians use a larger GPR control unit, coupled with a variety of antennas for specific needs. Examples include a 1.6 GHz general purpose concrete antenna, 400 MHz utility detection and mapping antenna, and the 2 GHz Palm Antenna, a compact, integrated concrete antenna for tightly spaced areas like corners, against walls, and around obstructions.

One example of how GPR can be used to ensure jobsite safety was at a major hotel, where the owners wanted to build a shopping mall on top of a multi-story compound. To reinforce the structure, they needed to drill into the basement and install reinforcing rebar and concrete columns. "Drilling into the basement can do more harm than good," says James. "We were able to core and scan the area. An accurate understanding of where all the existing structural elements were in the basement enabled the contractor to avoid damaging the existing structure."

Another example is a mini-skyscraper in Canada, where new bathrooms were being installed as part of a two-floor renovation. Safely installing all the necessary plumbing was a challenge because the floors contained a variety of structural elements running through them, including post tension cable.

With the help of GPR, Penhall's staff was able to locate the precise location of

Figure 3.



Figure 1.



Figure 2.

existing cables and enable the cutting crew to cut safely without causing any damage. The plumbers were then able to go to the jobsite and safely renovate the bathrooms.

At a major university stadium project in Arizona (see Figure 2), reinforcement of the columns required a very accurate scan of the rebar placement. To ensure the structural integrity of the columns it was critical that they not cut into the rebar, and there was little to no room for error. Penhall analysts were able to sample scan columns with precision, and allow the engineers and scanning team to build a project plan that would keep the project safe and moving forward.

Much like insurance, scanning brings a peace of mind for safety and cost savings that adds the real value. The bottom line is that cutting without scanning is a gamble. In addition, doing a small sample core or cut can help solidify data found in the scan. Taking a few minutes to test an area can prevent many potentially costly losses. The picture in Figure 3, of a project in Seattle, says it all.

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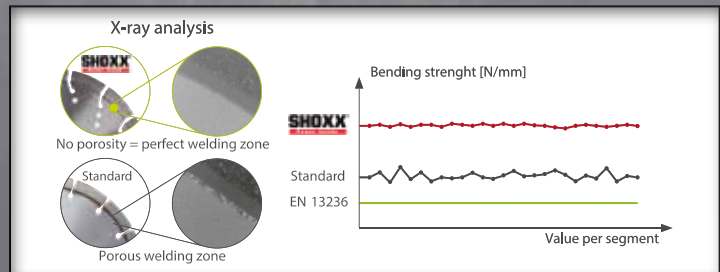
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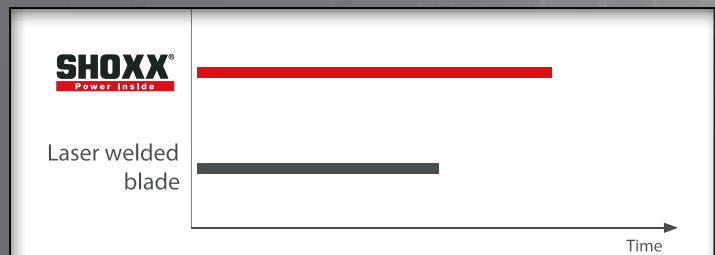


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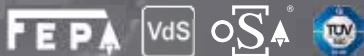
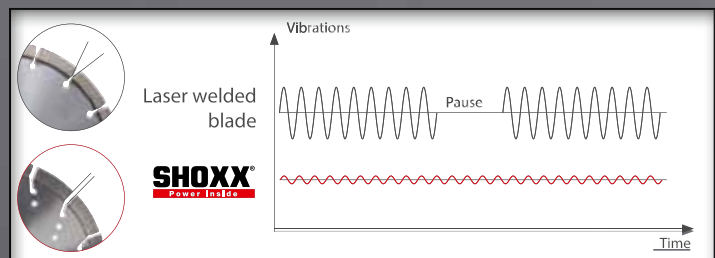
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Giant Mobile Dust Control Design Delivers Extended Coverage

Blade News From Bosh



The new mobile dust suppressor delivers a range of 328 ft (100m), and up to 140,000 ft (15,500m²) of coverage area.

Dust Control Technology introduces the DustBoss® DB-100 Fusion,™ the company's largest trailer-mounted dust control system with a powerful atomized mist design capable of covering 140,000 ft² (15,500m²). The DustBoss® DB-100 Fusion™ is powered by its own 150kW generator with a 6.8 L John Deere Tier III flex diesel engine, all securely mounted on one of several roadworthy dual-axle trailer options with stabilizing jacks. Designed for large open-air applications the unit delivers effective particle control in a highly-mobile platform that can be positioned directly at the source of dust-generating activities, even on sites without an available power supply. The new design can even be specified with a high-lift pump for drawing water from a stationary source, such as a private pond.

The versatile DB-100 Fusion features a 150-gal (568 L) fuel tank, providing about

32 hours of run time without refueling. Doors are equipped with hinges and door stops for easy access, and the generator's engine compartment is fitted with sound attenuation. Day-to-day operation can typically be managed by the remotely located on/off switch outside of the enclosure. A 120V receptacle for auxiliary tools, and a plug-in for the battery charger and block heater, are also located outside. Unlike industrial sprinkler systems used for dust management, the DB-100 Fusion uses only about 38 gal/min (143.8 L/min) to help avoid pooling or runoff. The unit shatters the inlet stream into millions of tiny droplets in the range of 50-200 microns—an ideal size for suppressing fugitive dust particles in most cases. The device can also be customized with alternative nozzle options for specialized applications.

The DB-100 Fusion features simple, user-defined oscillation, along with adjustable elevation from -7° to 45°. It can also be outfitted with a dosing pump to accurately meter in surfactants or tackifiers to further enhance binding of dust particles. The unit can be set up to run potable water, and outfitted with a selection of filters to handle non-potable water sources. For applications in which the water source contains high amounts of sediment, additional external filters are available. For operation in cold climates, heaters for the enclosure and heat tracing for pipes are available as options, and each machine is equipped with multiple automatic drain valves to enhance freeze protection. Users can easily set a custom oscillation range via the touch screen controls. The standard unit travels

at a rate of 1 degree per second to provide ideal coverage, and the oscillator features a quick-release handle that allows the barrel to be repositioned in seconds, without using any tools. The touch screen on the control panel is also used to turn the fan and booster pump on and off, as well as to adjust the vertical pitch of the barrel using simple up/down arrows. When the generator is turned off, a battery backup feature automatically returns the machine to the horizontal position, which is safe for towing, before it shuts down completely.

Maintenance requirements for the new design are minimal, even with the unit's 3-year/3,000-hour warranty on the dust suppressor, and a 2-year/2,000-hour warranty on the gen set. If potable water is being used, nozzles typically need to be inspected just once per year. The turntable bearing on the oscillator should be greased annually or as needed for harsh service conditions and the fan's motor and high-pressure pump should be lubricated every 10,000 hours. Like any diesel engine, the gen set should have regular inspections and changing of oil, coolant and filters. Although the new design is typically supplied to run on standard 480V power, customers can specify the unit in a wide range of voltages to suit locations virtually anywhere in the world.

Bosch 7-in (178mm) Premium Segmented Diamond Blades provide efficient, smooth cutting thanks to Bosch's exclusive technology to optimize cutting diamonds. Bosch embeds the highest-quality diamonds of varied dimensions in an enhanced 3-D pattern on the blade to systematically ensure that more diamonds are on the cutting surface and that the blade is efficient in cutting concrete and other hard materials.

The blade's segment design reduces friction between segment and concrete, based on regular segment length and spacing between segments. Laser-welding the segments to the core also makes each blade more durable and the cutting action more stable. Slots in the steel core help to remove dust generated during cutting.

Likewise, the Bosch Premium Segmented Rim Diamond Blades work with large angle grinders, and can be used with some circular/worm drive saws. A diamond rhombus-shaped knockout makes the blade compatible with worm-drive circular saws.

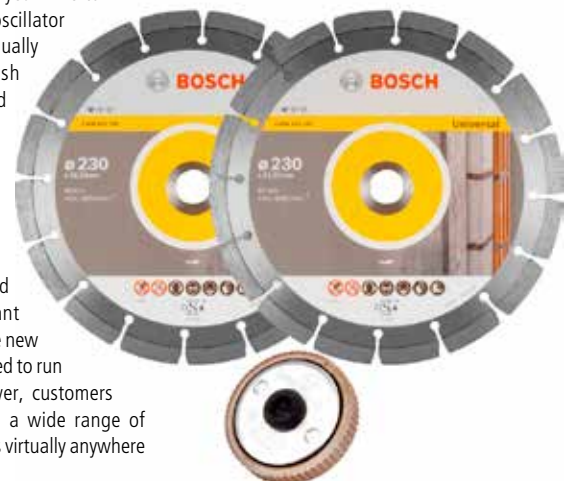
The 12-in and 14-in (305mm and 356mm) blades deliver fast, efficient cutting in concrete and other hard materials thanks to a tensioned blade core engineered with an innovative process that ensures each blade delivers smooth cuts with low vibration to reduce blade wobble.

These general purpose segmented rim blades offer a Bosch-exclusive diamond formulation that cuts most masonry and concrete materials. The .4-in (10mm) segment height provides up to three times the life compared with standard diamond blades.

Reduction rings are available for 1 in to .787 in (125mm to 20mm), which allows the blade to be used on application-specific concrete-cutting saws. The drive pin ensures the blade can be used on a walk-behind saw. These blades provide long life and smooth, fast cuts in concrete and masonry.



The unit is powered by a 480V/150kW generator with a 6.8 L John Deere Tier III flex diesel engine.



Going to the Dentist is Painless with Rammer



Hydraulic hammers being mentioned at the same time as a dental surgery is often associated with pain, discomfort and general unpleasantness. This is not the case in Doha, the capital of Qatar, as Rammer hammers are being used to spearhead the creation of an underground car park at a dentistry and dermatology clinic.

The principle contractor on the project, Roadbridge LLC, is using to great effect an impressive fleet of Rammer hammers that range from a pair of 3288 models right up to a 7013, the largest unit in the Rammer range. Part of a \$10 million contract, the project will require the removal of around 457,782 yd³ (350,000m³) of medium and hard limestone to create a car park space that is 656 ft (200m) long, 492 ft (150m) wide, and approximately 82 ft (25m) deep.

Taking place over six months, this tough, demanding and high intensity work has been entrusted by Roadbridge LLC to a formidable line-up of Rammer hammers. Heavy breaking is carried out by the 13,670-lb (6,200) Rammer 7013 mounted on a Volvo EC700 excavator. This impressive duo is supported by a Komatsu PC600 and a Caterpillar 345, each carrying a 8,600-lb (3,900kg) Rammer 5011.

Elsewhere on the site, a pair of JCB JS360 excavators is undertaking out-breaking work using two Rammer 4099 hammers that each has an operating weight of 6,173-lb (2,800kg). Lighter breaking work is charged to two JCB JS260 units, each equipped with a 4,500-lb (2,040 kg) Rammer 3288 breaker.

Despite the high temperatures, dusty conditions and long 10-hour shift working days, the Rammer hammers are performing admirably. Roadbridge LLC is on target to achieve its productivity aim of 3,900 yd³ (3,000 m³) per day.

According to construction manager

Joe O'Connor, much of this success can be attributed to the durability and reliability of the Rammer hammers.

"We are achieving an exceptionally long life on the bushings which reduces our costs and prevents unplanned downtime," O'Connor says. "And, the hammers are remarkably quiet making them the ideal choice for inner city applications."



News from MB Dustcontrol

MB Dustcontrol continuously develops new dust suppression equipment and has recently introduced a number of new machines into the market. They include SprayCannon 10, a dust suppression, ventilation, and air suction unit; SprayCannon 15 and 45, two new self supporting units; SprayCannon 35, another self-supporting unit that also includes a hydraulic mast for better reach and direction; and SprayCannon 25/35W, for mounting on the wall or in the ceiling.

The new self-supporting systems are designed to the increasing demand for self-sustaining systems such as the SprayCannon products, which are equipped with a water tank and generator, with or without a trailer. For example, the SprayCannon 15 includes a trailer equipped with a 304-gallon (1,150 litre) water tank and a 4 kVA Generator. By default, this installation is equipped with manual horizontal angle adjustment as well as vertical angle adjustment and comes with dry run protection. As an option, this in-

stallation is produced with the road watering option. By means of a simple operation can be switched between Road Watering and using the SprayCannon.

The SC15SS can work autonomously for four hours and sprays up to 50 ft (15m) when wind speed is minimal. In short, it's a versatile dust/odor control and road watering installation that is also very suitable for rental purposes.

MB Dustcontrol now offers the widest series of SprayCannons in the world, addressing the need for a specific approach for every dust suppression project.

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Grinders were originally designed for grinding steel. Grinding steel could only produce 1/2 inch surface contact. Converting grinders to work with concrete and using diamond cup wheels, full surface contact is required. Blastrac has a distinctive gear head solely for Blastrac grinders. With a reduced RPM of 6600, the grinder can run at a lower amperage, under load allowing the motor life to last longer even under heavy abuse. This can produce longer tool life over other higher RPM grinders. The Blastrac grinder operates virtually dust-free when used with a Blastrac shroud and connected to the BDC-1114-PKG or BDC-1216. There are a number of grinders for sale in today's market, compare the Blastrac grinder. *We don't sell just another grinder...WE are unique.*

TECHNICAL SPECIFICATIONS	
Grinding Width:	7 in. (178mm)
Production Capacity:	150/200 sq.ft/hr
Motor:	6600 rpm
Voltage:	120V, 1ø, 60 Hz
Amperage:	15A
Power Cord:	6 ft. (1.8m)
Dust Hose Connection:	2 in. (50.8mm)
Weight	: Net 9 lbs (4kg)
Dimensions:	L 19 in. x W 4.5 in. x H 5 in. (483mm x 114mm x 127mm) without handle attached



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