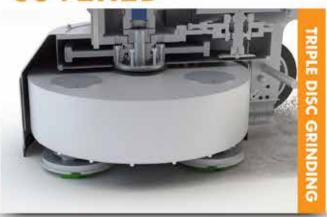




WE GOT IT COVERED









WWW.BLASTRAC.EU • INFO@BLASTRAC.EU







BEYOND EXPECTATION. ONLY WIRE.

Steel



Ø 10.2*53 bpm

Steel



Ø 10.2*48 bpm

Concrete



Ø 10.2*40 bpm

Finish



Ø 8.8*48 bpm

www.widecut.com







FLOOR GRINDING AND POLISHING MACHINES

Electric, Propane, Self-Propelled, Remote-Controlled...

WE HAVE IT ALL.



New maintenance window on the machine base provides a quick and easy access to the forced planetary drive system, minimizing maintenance time

www.superabrasive.com













Professional Demolition Americas Magazine

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

E-mail Editorial Office: editorial@pdamericas.com

Web Site: www.pdamericas.com

EDITORIAL STAFF

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

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

Assisting Editor-in-Chief

anita.hermansson@pdamericas.com

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

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

CORRESPONDENTS

andrei.bushmarin@pdworld.com

Mikael Karlsson mikael.karlsson@pdworld.com

heikki.harri@pp1.inet.fi

Kevin Mayhew kevinm@addixion.co.za

SALES

Darren Dunay Riverbends Publishing, LLC, PDa Magazine P.O. Box 119, Westwood, NJ 07675, USA Phone: +1 201 781 6133, Fax: +1 201 664 1829

darren.dunay@pdamericas.com

eduardo.kubrick@pdamericas.com

Sales Europe and rest of the world sales@pdamericas.com

Publisher

The magazine PDa, Professional Demolition Americas is published four times per year in North and South America. The annual airmail subscription rate is US\$ 45. All subscription correspondance should be directed to: The subscription department, Riverbends Publishing, LLC, P.O. Box 552, Nokesville, VA 20182, USA. Or sent by e-mail to info@pdamericas.com. PDa is mailed by second class postage. @Copyright Riverbends Publishing, LLC, 2013. Printed in the US

Cover photo: Flatsawing at the Navy Pier in Chicago, Ill, USA. Copyright: Alliance Concrete Sawing & Drilling, East Dundee, Ill, USA.



Your Gateway to North, Central and South America

Editorial How To Beat The Buzzkill

Business Construction boost in Mexico

> Alden Promoted to Product Manager for KPI-JCI and Astec Mobile Screens

Love Joins Brokk as Start-Up and Training Technician

LiuGong invierte en fábrica en Brasil

10 U.S. Construction Equipment Exports Drop 13 Percent in 2014

> Latin American Concrete **Cutting & Demolition Forum** Postponed to 2016

News 12 Jeff Adams Joins Genesis Attachments as Vice President, General Manager

> New Patented Shear Tip Technology from Allied-Gator

Genesis Attachments XT Mobile Shear Now Available in 18 Models

Targeted Dust Control for Low-Turbulence Applications

C&D Recycling Industry's Characteristics Released at C&D World

Reports
Cardinal Rules of Success

32-33 "I Saw the Obvious That No One Else Saw"

14-16

20

34-35 "O óbvio que ninguém via

48-50 Eiche Forges Ahead With Breakthrough Diamond Technology

16 **Bretec Enhances** Breaker Range

> High Cycle Wall Saw System New Geith Quick Coupler

Diamond Products WSE2226

Control System Provides Greater Attachment Versatility

Diamond Products Announces New Power Unit The Concrete Cutters Pride

Blue Hydraulics Boosts Dynaset

Chicago Pneumatic's **New Compressors**

Water Cannons From Duztech

New High Cycle Chain Power Cutter from Husqvarna

Husqvarna Presents a New Package Set-up for DXR

Concrete/Asphalt Recycler **Utilizes Atomized Dust** Suppression

HTC AirFlow — A Whole New Generation of Tool Holders

45

46

18-19

24-25

26-31

38-42

New Version of HTC's Popular 80 iD Dust Extractor Now Available

HTC Updates T-Rex Super Floor Stripping Tool

New Electric Cut-Off Machine From Stihl

MAXXimize Your Blade Performance

New Robust Drill Stand DS 900 From Husgvarna

Site Report
AR Demolition Tests Rammer Power and Precision

NASDAQ Terrarium Down

Shows

There They Go Again

Features The Mecca for Concrete Floor Grinding and Polishing Equipment



BENEFÍCIOS DE ALUGAR DE UMA EMPRESA ASSOCIADA À ALEC

- Locadoras em todo o Brasil
- Cursos, eventos, palestras para locadoras, colaboradores, construtoras e clientes finais
- Locadoras com equipes treinadas e qualificadas para aplicação dos equipamentos
- Acesso a informações atuais
- Acesso a Manuais de Operação de Equipamentos
- Orientações sobre as Normas Regulamentadoras



Entre em contato 55 11 3965-9819 ou envie um e-mail secretaria@alec.org.br



www.alec.org.br

How To Beat The Buzzkill

If you keep up with popular culture, you've probably heard the term "buzz-kill"—something or someone that spoils an otherwise enjoyable event.

All of us have encountered buzzkills of some sort—a constantly boorish coworker, a sudden cloudburst that ruins a long-planned outdoor event, or the sports team that undercuts the jubilation of its ardent fans at the last minute.

The construction and demolition industry can have its own buzzkills as well, and we're not talking about safety devices to disable saws or anything like that.

As you'll read in this issue of PDa, the "buzz" around February's World of Concrete show in Las Vegas was the generally upbeat state of the U.S. economy. The good mood was shared by both attendees and vendors alike, with one company remarking that some of his regular customers had to skip the show because they were just too busy to get away.

And even though there weren't a tremendous number of new product introductions, the equipment displays still drew crowds of prospective buyers, apparently encouraged enough either their existing backlogs or the promise of finally having one to invest in some new tools.

In sum, a good time was had by all. And the forecast is for the uptick to continue. So what could go wrong? What could kill this buzz?

One of the biggest potential threats to this newfound era of good feeling is the continued absence of a long-term federal transportation funding bill in the U.S. It is, to be sure, a complicated issue with differing views on replacing the 1950s-era per-gallon gasoline tax with a suitable

21st Century alternative. But rather than finding consensus, Congressional inaction means states must limp along year-to-year, complicating not only planning for long-term project

upgrades but also routine maintenance and repair programs—both of which are go-to markets for many demolition contractors, especially during times when work for commercial clients slows.

Fortunately in many parts of the U.S., private-sector activity is steady, if not downright robust. Of course, there remain areas still struggling to escape the mire of recession,

but for the most part, everyone who wants work doesn't have to look far to find it.

How long will that last? No one can say. The consensus in the U.S. is at least through the 2016 elections, though Nature, resources, and corporate risk management calculations could dictate otherwise. Few saw the effects of the last recession coming, and conditions have

in the intervening years.

Hopefully, PDa readers won't consider these thoughts to be a buzzkill to whatever prosperity they are experiencing. Everyone should make the most of the high side of the economic cycles, and take rational steps to protect themselves against the inevitable troughs.

become no less volatile

At the same time, no one should blindly approach the coming months with crossed fingers as

the core of their business strategy. A thoughtful communication to a Congressional representative might well pave the way (pun intended) to that long-awaited transportation bill. Attention to current events might provide early warning to which markets are gaining strength, and those showing signs of cooling off.

Awareness and action may not prevent these buzzkills from occurring, but they will surely dull their sting.

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

Event Calendar

Intermat 2015 World of Concrete Europe

April, 20-25, 2015 Paris - Nord Villepinte, France www.intermat.fr

Construexpo 2015

April, 24-27, 2015 Poliedro de Caracas, Caracas, Venezuela www.confex-us.com

M&T Expo 2015

June, 9-13, 2015 Immigrantes Exhibition Center, São Paulo, Brazil www.mtexpo.com.br

FELOC Expo Rental 2015

May, 6-7, 2015 Sede Alec, São Paulo, Brazil www.alec.org.br

Concrete Show 2015

August, 26-28, 2015 Immigrantes Exhibition Center São Paulo, Brazil

Latin American Concrete Cutting & Demolition Forum 2015

October, 1-2, 2015, Rio de Janeiro, Brazil **www.latindemoforum.org**

Conexpo Latin America

21-24 October, 2015
Centro de Eventos y Convenciones
Espacio Riesco, Santiago, Chile
www.conexpolatinamerica.com

Edifica 2015

October, 21-24, 2015 Esåacio Riesco, Santiago, Chile www.feriadelaconstruccion.cl

Bauma 2016

October, 11-17, 2016 Munich Exhibition Center, Munich, Germany www.bauma.de

Construction boost in Mexico

Some time ago, the Mexican government announced that the launch of an extensive infrastructure plan, which will ultimately include construction of one of Latin America's most modern international airports in the capital, Mexico City. The level of investment is estimated to be as much as US\$9.2 billion. More large construction projects are expected to be launched in the country as well. Mexico is considered one of the fastest expanding concerning the construction sector in Latin America right now.

Alden Promoted to Product Manager for KPI-JCI and Astec Mobile Screens

KPI-JCI and Astec Mobile Screens has promoted Nick Alden to product manager at Johnson Crushers International, its Oregon manufacturing facility. Prior to working for the company, Alden served as project manager for JELD-WEN Windows & Doors designing production equipment and managing product line installations. Alden graduated from Oregon State University with a degree in mechanical engineering.

In his new role, Alden will work closely with Nick Hahn, inside sales director, and lan Pendergrass, product development manager. He will be responsible for determining new product development projects and complete implementation of the entire process from initial concept to final release to the sales department, according to Pendergrass, who stepped into his new role in December 2014.

"As Nick and I transition into our new roles, our goal is to work as a team working on each project together," Pendergrass said. "My hope is that over the course of the next year, we develop a preference for a specific product line and each grow into a more specialized role. I'm very excited about this new direction that the company is taking by dedicating resources specifically for product development. With Nick's background and experience in engineering, he will be a tremendous addition to the team."



Love Joins Brokk as Start-Up and Training Technician

Since he was old enough to hold lumber, Jessie Love has been out in the field working construction. Growing up, he helped out with his father's residential construction business, which gave him great understanding and experience within the industry. Love brought his 15 years of experience to Brokk in November as a start-up and training technician. He travels to customers near



and far to provide training on how to best optimize the Brokk machines' capabilities in a variety of applications.

"I'm excited for this opportunity because I know Brokk is the future," Love says. "Companies want to do as much as they can to keep their workers out of harm's way, and the Brokk machines give them those abilities. Brokk is the tip of the spear when it comes to enhanced jobsite safety."

As start-up and training technician, he assures customers that if there is anything they need he is just a phone call away.

"We're excited to have Jessie join our team in Monroe, Washington," says Brokk President Lars Lindgren. "His outgoing personality and vast operating knowledge and experience makes him a great asset to our company and, most importantly, our customers."

Love is not only a skillful equipment operator with eight years of dedicated operating experience, but he also is an ultimate sports fanatic. When he's not on the road, you will often find him on the golf course or softball field. Unless, of course, it's during football season. As a seventh-year season ticket holder, you're likely to spot him at CenturyLink Field cheering on the Seattle Seahawks.

LiuGong invierte en fábrica en Brasil

LiuGong Machinery, el principal fabricante chino de equipos pesados de alta calidad para la construcción, anunció este viernes 20 de marzo, durante la ceremonia de inauguración de su primera fábrica en Brasil, que invertirá R\$ 120 millones en el país. La planta se encuentra en Mogi Guaçu - SP, ciudad ubicada en la zona rural, a 180 km de São Paulo.

El proyecto está llevado a cabo por Investe São Paulo, agencia de promoción de inversiones vinculada a la Secretaria de desarrollo económico, ciencia, tecnología e innovación del Estado de São Paulo. "Ayudamos a LiuGong a elegir el lugar ideal para su planta y la orientamos en relación con los incentivos tributarios. Pero el trabajo recién está comenzando, ya que ayudaremos a la empresa en lo que sea necesario para la infraestructura de la fábrica", afirma el

presidente de Investe SP, Juan Quirós.

LiuGong estima producir 1500 unidades al año en la nueva instalación. La inversión se dará a lo largo de tres años, reflejando las expectativas de evolución de los negocios en el país. La fábrica entregará los equipos más comercializados en el mercado brasileño, incluidas palas cargadoras y excavadoras. Esta será su cuarta fábrica fuera de China, en donde son líderes en excavadoras y cargadoras de ruedas. En Brasil, LiuGong opera desde 2007 y es reconocida por la calidad de sus productos, facilidades para el mantenimiento y su amplia gama de productos para la construcción y la minería.

El equipo se distribuye en todo Brasil y tiene un sistema de soporte posventa con presencia local. Una de las grandes ventajas ofrecidas es que se utilizan repuestos conocidos y reconocidos de socios de clase mundial como Cummins, ZF y otros. La ciudad de Mogi Guaçu ofrece fácil acceso a alguno de los principales proveedores de repuestos en la región y su ubicación estratégica es fundamental para el plan de negocios.

"LiuGong está reforzando la relación de largo plazo con Brasil. Tenemos una historia de éxito en el país con nuestras máquinas. Esta inversión es una consecuencia natural de nuestra evolución de negocios y de la creencia que los mercados de infraestructura y construcción civil tienen un excelente potencial para crecer en los próximos años", afirma Bruno Barsanti, vicepresidente de LiuGong América Latina.

La empresa planifica contratar localmente al 80% de sus empleados y tiene la política de ofrecer oportunidades de crecimiento profesional. "La empresa realiza una fuerte inversión en productos y tecnologías nuevas en China y estos avances se utilizan en todo el mundo, en nuestras operaciones en Polonia, India, Argentina y ahora también en Brasil. Estamos comprometidos con la transferencia de nuestros valores a las comunidades elegidas para la construcción de nuestras instalaciones, proporcionando crecimiento social, económico y de conocimiento", afirma Barsanti.

De acuerdo con el vicegobernador y secretario de Desarrollo económico, ciencia, tecnología e innovación, Márcio França, la implementación de la unidad en Mogi Guaçu es el resultado de las acciones del gobierno paulista para estimular la economía en todo el Estado. "São Paulo presenta índices de competitividad superiores a los demás Estados, gracias a la iniciativa del gobierno estatal en inversiones para la investigación, innovación y capacitación de recursos humanos. La elección de Mogi Guaçu es estratégica, pues el municipio cuenta con Etec, que ofrece cursos orientados a la industria. Además, la fábrica se encuentra en la región administrativa de Campinas, que además de la oferta de mano de obra y parques tecnológicos, tiene una ubicación privilegiada, debido a la proximidad a los principales centros industriales y comerciales del país", afirma.

www.liugong.com

Power inside

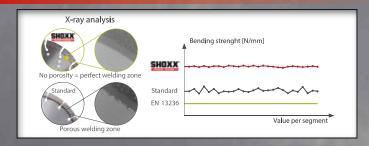
®

FORGING TECHNOLOGY **MADE IN GERMANY**

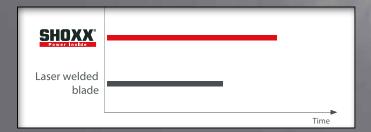


PURE INNOVATION FROM EUROPE

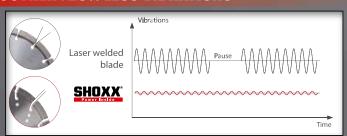
SAFER: 300% of EN 13236



50% FASTER CUT & LONGER LIFE



SMOOTHER: 25% LESS VIBRATIONS













U.S. Construction Equipment Exports Drop 13 Percent in 2014

Exports of U.S.-made construction equipment ended 2014 with a 13.2-percent drop compared to 2013, with a total \$17.26 billion shipped to global markets. U.S. exports fell to all world regions for 2014. Business to Europe, South America, and Australia/ Oceania were the hardest hit, according to the Association of Equipment Manufacturers (AEM), citing U.S. Department of Commerce data AEM uses to prepare global markets reports for members.

Exports by world region

Year-end 2014 U.S. construction equipment exports by major world regions compared to year-end 2013:

- Canada -2 percent (\$6.66 billion)
- South America -28.3 percent, (\$2.57 billion)
- Asia -7.1 percent, (\$1.98 billion)
- Europe -22.6 percent, (\$1.98 billion)
- Central America -11.4 percent, (\$1.95 billion)
- Africa -5.2 percent (\$1.23 billion)
- Australia/Oceania -32.4 percent (\$889.5 million)

Top 10 countries for exports

The top countries buying the most U.S.-made construction machinery during 2014 (by dollar volume) were:

Canada \$6.66 billion (-2 percent) \$1.59 billion (-11.3 percent) Mexico Australia \$808.3 million (-34.9 percent) \$720.5 million (-19 percent) Brazil South Africa \$669.5 million (-1 percent) \$617.4 million (-38.2 percent) Chile Belgium \$461.3 million (-25.2 percent) \$460.4 million (-27.8 percent) Peru China \$367.8 million (-3.1 percent) Saudi Arabia \$326.9 million (+10.7 percent)

Market analysis overview

The fourth quarter of 2014 marked the eighth consecutive quarter that U.S. construction equipment exports experienced year-over-year declines. While exports have been decreasing steadily since the second quarter of 2012, imports have been trending higher. The fast growth in the post-recession export figures (2009-

U.S. Exports of Construction Machinery

2014 year-end compared to year-end 2013



2012) was a strong driver for domestic manufacturers, though it appears the domestic market has become one of the more robust growth engines for the industry.

The recent declines in total construction equipment exports, which were in line with regional development, have been partly due to a retrenching from accelerated spending earlier in the economic recovery; a strengthening dollar against the Japanese Yen; and declines in commodity prices, particularly oil, copper, and coal. From a global perspective, the U.S. market remains

strong, though somewhat affected by the oil price declines.

In the global markets, South America, and specifically the Brazilian market, remain challenging. China also experienced a sluggish demand, despite government stimuli. Europe's market remained uneven with growth in the United Kingdom, though the Russian market declined significantly. The strong decrease in exports to Belgium can be attributed to the overall European market, as Belgium remains a throughput nation.

www.aem.org



POWERED BY HYDRAULICS

Dynaset is the global leading manufacturer of hydraulic generators, power washers and compressors. Dynaset hydraulic equipment converts the mobile machine's hydraulic power into electricity, high pressure water, compressed air, magnet and vibration.

COMPACT | RELIABLE | POWERFUL HPW-DUST HIGH PRESSURE DUST SUPPRESSION





Latin American Concrete Cutting & Demolition Forum Postponed to 2016

Over the past year and a half, PDa and its sister publication, PDi, have vigorously promoted the Latin American Concrete Cutting & Demolition Forum, which was scheduled for October 1-2, 2015, in Rio de Janeiro. Unfortunately, we have elected to postpone hodling this event until October 2016 at a new venue in of São Paulo.

Though we know that the South American markets have great potential, we've found that promoting this type of event towards a fairly young industry sector is quite time-consuming in terms of the sales effort, particularly given the continual sharp fluctuations in the economy. We feel that with another year's time, we would have an even better chance to anchor the Forum among several more South American industry associations, as well as among more contractors.

In addition, two construction-related

trade fairs with accompanying seminars are already scheduled for Brazil during 2015. M & T Expo will be held in June, followed by Concrete Show in late August, both in São Paulo. And, CONEXPO Latin America is scheduled for Santiago, Chile, at the end of October.

Rescheduling the forum for a year with less interference from other industry events will make the event more attractive to both exhibitors and attendees. The 2016 Forum 2016 will have the same format as was planned for this year. Our website, www. latindemoforum.org, remains active and will be updated with new information in the coming months about the 2016 event. We apologize for the inconvenience the change in date and venue may cause. If you have any questions please don't hesitate to contact us.

www.latindemoforum.org





Doing more.

Introducing new feature options for increased precision, performance, and protection. Our new factory-installed packages include an enhanced cooling option, a hydraulic option, or a heat protection option.

Enhanced Cooling: allows DXR full power in higher ambient temperatures.

Hydraulic Option: an additional hydraulic function can be added to expand the range of attachments used.

Heat Protection: protects vital parts from damage caused by radiant and conduction heating.

These new possibilities will enable the DXR to be used for applications such as kilns, steel factories, de-slagging in hot melting plants and more. To learn more visit our website, **www.husqvarnacp.com**, or call your Husqvarna representative.

Jeff Adams Joins Genesis Attachments as Vice President, General Manager

During his 10-year career with Waukesha Bearings/Dover Corporation, Jeff progressed through senior level roles in finance, operations, and general management. He most recently served as Vice President and General Manager of Engineered Fluid Film Bearings, the company's largest business unit, achieving significant revenue and earnings growth. His nearly 30 years of professional experience also includes financial leadership roles in several companies, including Rexnord Corporation. Jeff holds a Bachelor's degree in Accounting and an MBA, both from the University of Wisconsin-Madison.

www.genesisattachments.com



Genesis Attachments XT Mobile Shear Now Available in 18 Models

Genesis Attachments announces the availability of GXT 225, GXT 1555, and GXT 2055 straight and rotator models. With the number of models now at 18, the XT Mobile Shear line fits 1.25- to 312.5-ton excavators.

Shorter in length and height and lighter in weight, the XT features a center of gravity that is closer to the carrier, enabling models to mount on excavators that previously could only carry smaller, less powerful shears.

The XT also features an apex where most cutting is done—that is closer to the back of the jaws. This improves material gathering, and increases cutting performance and efficiency while reducing maintenance.

www.genesisattchments.com



Targeted Dust Control for Low-Turbulence Applications

Dust Control Technology (DCT) has engineered a smaller version of its low-turbulence atomized mist unit for applications that require precision particle control without the disturbance of a fan-driven design. Developed for applications such as conveyor unloading points and other limited-space

under calm conditions. The result is effective fugitive particle management at the source

The standard boom length is 2 ft (.6m), but can be specified anywhere from 1 to 15 feet (.3 to 4.57 m). It is fitted at the end with a misting head featuring nine atomizing nozzles. With a minimum required pressure of just 10 psi (.69 bar) and a maximum of 100 psi (6.89 bar), water is fed through a standard .75 in (19mm) swivel hose coupling or an optional 1.5 in (38mm) NPT connection. Water travels through an in-line 200 micron filter, up the boom, and to the head, where the atomizing nozzles fracture the flow into millions of droplets, which are distributed evenly across the target area.



dust-producing areas, the DustBoss® DB-M Mini is built to provide effective suppression without material disruption or saturation. Generating a cascading mist of atomized droplets averaging 50-200 microns in size, the unit has a throw of about 10 ft (3.04m)

of the problem, with little pooling or runoff. "We've found suppression is best achieved by controlling dust at the source

whenever possible," says DCT's Carl Harr. "We designed this compact version of the DB-M to fit into smaller spaces to directly address those specific problem areas."

New Patented Shear Tip Technology from Allied-Gator

Allied-Gator® introduces the patented Stealth Tip™, available exclusively for the patented MT® mobile shear.

The Stealth Tip has been designed

to provide increased piercing performance while allowing them to be field-changed in less Americas • Issue 1 • 2015 • www.pdamericas.com

continuing to lower the operational and maintenance costs associated with mobile shearing.

The Stealth Tip is an assembly which is specifically designed to engage and retain a pair of long-lasting, replaceable inserts. A single bolt secures the inserts

than two minutes. These tough, durable inserts are extremely affordable and fully weld-maintainable, enabling them to be resurfaced and reused multiple times.

Unlike other designs, the Stealth Tip does not compromise the integrity of the shear knife because it is an independent weld-on component that can quickly be replaced should damage ever occur. This feature also allows users the versatility to

fully utilize the previously standard solid weld-on shear tip which is still available for the MT mobile shear.

The patented Allied-Gator Stealth Tip is immediately available and accommodates all new and existing MT shear models ranging in sizes from the MT 15 through the MT 160.

www.alliedgator.com

C&D Recycling Industry's Characteristics Released at C&D World

More than 70 percent of the construction and demolition (C&D) material generated in the U.S. is recycled, according Dr. Timothy Townsend of the University of Florida.

Speaking at C&D World 2015, the annual meeting of the Construction & Demolition Recycling Association (CDRA), Dr. Townsend added that the area of landfill avoided by recycling this amount of C&D is annually equivalent to more than 440 acres (178 hectares) at a waste depth of 50 ft (15.25m).

Townsend's remarks were based on a C&D White Paper that his research team was commissioned to develop by the CDRA. He noted that C&D material (e.g., concrete, asphalt, wood, drywall, metals, asphalt shingles, and many other materials generated during road, bridge, and building projects) is created at a rate of nearly 480 million tons per year, making it the largest individual waste stream in the country.

The report also provides data on the energy saving and greenhouse emissions avoidance as a result of recycling C&D materials. It states that the C&D recycling industry is responsible for the direct support of 19,000 jobs, with the direct annual output (revenue) of the industry to be approximately

"This report proves the incredible value and importance of the C&D Recycling Industry," says Valerie Montecalvo, President of the CDRA, and also President of Bayshore Recycling, Keasbey, N.J. "This shows that C&D is one of the largest material streams in the United States, and that recycling these materials provides tremendous economic and environmental benefits."

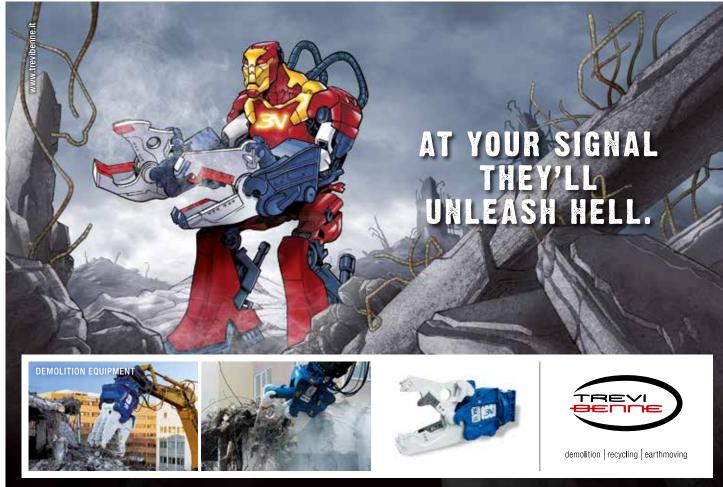
More in-depth information is available in the CDRA's C&D White Paper, which was developed from the most extensive data collection ever gathered from C&D recyclers. In the past many researchers have tried to gain information from C&D recyclers, and were not very successful. An Executive Summary of the report's findings is available on the CDRA's website, www.cdrecycling.org.

"On behalf of the CDRA Board of Directors, I want to thank all of the many companies that responded to the survey, which allowed us to put together this overarching look at the industry," says Montecalvo. "The amount of data gathered is going to allow the researchers at the University of Florida to provide more depth of understanding about our industry."

Earlier in the conference Ed Sullivan, Chief Economist for the Portland Cement Association (PCA), predicted that construction activity would increase 5.5 percent in 2015, including a 17-percent increase in new housing starts. Though that index might rise even higher, Sullivan cautioned that the housing sector remains relatively low.

www.cdrecycling.org.





CARDInal Rules

The Italian manufacturer of drilling and sawing equipment Cardi, has been out of the spotlight for many years, preferring instead to focus on technological innovation. Having built a successful global business since its formation in 1985. the company is shifting its attention to increasing brand recognition. Andrei Bushmarin reports.

Engineer Ezio Cattaneo, Cardi's managing director and co-founder.

The Italian school of engineering design has always ranked among the world's finest. Brands like Ferrari and Lamborghini prove that Italians know how to build sleek and powerful machines. And, as the Cardi case shows, their engineering talents reach far beyond the automotive industry.

Cardi simply short for diamond drills

Cardi's entire story is also inextricably linked to motors, albeit of a different nature. When, in 1985, Ezio Cattaneo, Raffaele Crotti and Alessandro Sangalli made a life-changing decision to set up their own manufacturing enterprise, they chose to focus on drill motors and drilling systems. In picking a name that would sum up their priorities, the founders settled on Cardi Sangalli—Cardi was an amalgam of the Italian words carotatrici al diamante, or diamond drills. In its first year the rookie manufacturer launched a range of four-speed drill motors, and was chosen as the sole supplier of core drilling machines for Black & Decker Europe. Two years on, the Italian company developed a revolutionary twin-motor unit that was capable of generating the power rating of 2 x 3 hp (2.2kW) at 230V, while deriving electricity from a regular single-phase outlet. This was groundbreaking innovation, considering that most drill motors this powerful could only run on a three-phase supply. Thanks to the dry-drilling option, the twin-motor solution proved particularly handy on challenging projects of church and historic building restoration that precluded the use of water. In 1988, the name Cardi Sangalli was shortened to the now-familiar Cardi, and a range of professional drill stands was added to the company's portfolio.

Cardi's business skyrocketed in the mid-90s when it launched a new series of drill motors called il Talpa, the Italian word for





Cardi owns and operates manufacturing facilities in Pontida, a little town near Bergamo.

mole. With a power rating of 4 hp (3kW), il Talpa was one of the most powerful single-phase drill motors at the time. It came equipped with a soft-start device, and could be plugged into a regular household socket. The success Talpa motors enjoyed in the market allowed Cardi to progress into an international player.

In 1996, two new companies, Cardi Motoren Handels and Cardi Werksvertretung, were established by Holger Graw and Kuno Heim in Oberstenfeld, Baden-Württemberg, to take care of sales and service of Cardi machinery in Germany. A few months later, a service center and a products warehouse were added to the list of German assets. Along with the U.S., Germany has remained one of Cardi's largest overseas markets. In 1999, Cardi moved into its current premises in Pontida, a tiny town near Bergamo, a short distance from the original workshop. Along with manufacturing and assembling lines, the new 43,000 ft2 (4,000m2) facilities also housed a prototype workshop, an outdoor testing area, and a simulation laboratory.

Making it in the U.S.

Cardi greeted the advent of the new millennium by establishing a foothold in the North American market. When Markus Bartl, the founder of Houston-based Expert Equipment Company, approached Cardi with the view to representing the Italian manufacturer in the U.S., Cardi was fully prepared to embrace



of Success





the new challenge. Thanks to this partnership, the Cardi brand gradually gained recognition throughout the country. In 2008, Cardi and Expert Equipment Company jointly exhibited at the World of Concrete show in Las Vegas, further boosting Cardi's profile among American customers. Two years later Cardi used WOC to unveil the electric chainsaw Coccodrillo35. Powered by a single-phase electric motor, the lightweight Coccodrillo35 offered a safe and environmentally friendly solution for indoor cutting tasks. The following year, it won The Best Innovation award at the SAIE show in Bologna. Cardi's portfolio of electric chainsaws was further expanded in 2011 to include Alligatore, a model designed to cut various types of masonry.



With its American operations growing steadily for over a decade, Cardi began to import and promote its products under the name of Cardi America in 2014 to further increase the brand's identity. Cardi is a company of few words but plenty of action. With 40 employees, half of whom are involved in production, the company sells to more than 40 countries through a worldwide network of dealers and distributors. Having secured its position in most European countries, the U.S., Russia, and Australia, Cardi is now eyeing opportunities in emerging economies of South America and Middle East.

Until recently Cardi primarily concentrated on innovative technological solutions while putting things like branding and marketing on the back burner. While staying focused on technology, Cardi will now strive for greater visibility by exhibiting under its own brand at major trade shows. Drill motors and drilling systems will remain Cardi's core product line, but more concrete sawing equipment may be added soon. More general contractors, plumbers, and electricians are looking for concrete cutting and sawing equipment that requires little initial investment, but would be able to perform a wide variety of tasks.

To meet these requirements, Cardi has devised the Da Vinci modular system. Built around an electric 230V or 115-120V, 4.6hp (3.42kW) single-phase motor and a column with the toothed rack, it can be fitted with the Coccodrillo35 or Alligatore chainsaws, a TP 400 hand-held wall saw, or a diamond core drill motor, which gives it almost unlimited cutting and drilling capabilities. Cardi hasn't forgotten hard-core drillers. In September last year, the company extended its range of professional stands with the C600 model, designed for jobs with up to 23 in (600mm) core bits.

www.cardi.biz



Engineer Simone Invernizzi, head of research and development.



Stefano Invernizzi, product development, holding a 3D print of the Coccodrillo 35 chainsaw.



Alessandro Ghibaudo, Cardi sales and marketing manager.



Cardi's chainsaw Alligatore for masonry cutting.



Bretec Enhances Breaker Range

Sandvik's Bretec brand recently launched two new C-Series models: the M17C and L20C. These breakers incorporate a number of new features and updates over the M17 and L20 models they replace.

Designed for carriers in the 15-23 ton and 20-29 ton operating weight classes, the M17C and L20C models boast operating weights of 2,734 lb (1,240kg) and 3,637 lb (1,650kg) respectively. Impact rates range from 280 to 760 blows per minute on the M17C, and from 390 to 700 blows per minute on the L20C.

In addition to their enhanced performance, the two new models incorporate many new features providing greater reliability and durability, as well as delivering reduced ownership and operating costs. These features include:

 Round Retaining Pins – Delivers extended life for lower cost of ownership and operation

- New Tool Retaining System Permits faster tool changes for reduced downtime
- Improved Tool Seal Protects tool, bushings and retaining pins reducing ownership and operating costs
- Dust-Protected Housing Prevents dust ingress for reduced wear and helps reduce noise levels.
- Idle Blow Protection Eliminates tie rod stress and oil overheating to protect against premature failure.
- Automatic Greasing Autolubrication now available as an option for greater tool protection

In addition, the M17C and L20C both benefit from the addition of durable hydraulic hoses as standard, high pressure accumulator that protects against pressure peaks, improved gas sealing for extended service intervals, and an improved and self-adjusting pressure control valve to eliminate oil spillages.

Diamond Products WSE2226 High Cycle Wall Saw System



Diamond Products offers the most choices in sawing equipment including the new Hydrostress WSE2226 High Cycle Wall Saw. This powerful electric system can handle up to an 86 in (2,184mm) diameter blade with 35 hp (26kW) at the output shaft.

Other features include quick-mounting blade flanges made easy blade removal, up to 40 in (1,016mm) maximum starter blade without being in the cut, and an infinitely adjustable swivel arc that rotates 360 degrees. A complete control unit with radio remote control is also available.

New Geith Quick Coupler Control System Provides Greater Attachment Versatility

With fewer components than the previous model, the new control system for Geith hydraulic quick couplers simplifies the installation process. The versatile mounting bracket allows users to quickly and easily install the compact control box with suction cups or small screws.

Designed for tough working conditions, the dust and water-resistant control box features four user-friendly buttons — power, unlock, lock, and hydraulic pressure signal/bypass. With improved safety features, including an audio warning signal, the

Geith control system meets current and proposed safety standards (ISO/ DIS 13031).

The new control system provides users with two possible operating sequences: standard and bypass. Standard operation requires the operator to curl the attachment, generating a pressure signal that opens the quick coupler's locking system. In situations where it is not possible to fully curl the attachment, a bypass function is available to release the



locking system on the quick coupler.

With minor modifications, the new Geith control box can be used with the previous Geith hydraulic control system.



Diamond Products Announces New Power Unit

Diamond Products announces its expanded power unit line with the CB80CT trailer-mounted Hydraulic Power Unit. The unit contains an 80 hp (60kW) Cummins® diesel engine that is compliant with Interim Tier 4 emissions.

The hydraulic flow and pressure control is fully adjustable with a maximum

of 30 gallons (113.5 liters) per minute, and 3,000 pounds psi (206.8bar) with twin circuits.

The CB80CT makes it easy with a cordless remote control of engine throttle and hydraulics on and off along with two Hannay® reels.



WORLD PREMIERE SCAN COMBIFLEX 800 DSP

THE NEW WAY TO GRIND ALL YOU NEED - ONE DISPLAY



SCAN COMBIFLEX 800DSP WORLD PREMIERE AT WORLD OF CONCRETE 2015.
FOR LIVE DEMOS - OUTSIDE BOOTH 031250 - INSIDE BOOTH 031250
WWW.SCANMASKIN.COM



site report

AR Demolition Tests Rammer

Presion Presion

In 20 years, AR Demolition has grown from a sole trader operation to an award-winning demolition company with a reputation for the training of its personnel. AR Demolition prides itself on a "no-job-too-small" philosophy, which has seen the company tackle everything from bus stops and bungalows to major industrial sites, factories, fire-damaged structures, and disused quarry plants.

More recently, the company has been engaged in the demolition of former newspaper print works where heavily reinforced, vibration-resistant concrete floors presented a major challenge. The former Northampton Chronicle newspaper works featured large, heavy printing presses on heavily-reinforced concrete pads and foundations up to 20 ft (6m) thick in places.

"Only solution is sheer fire power"
"This is potentially a demolition man's worst night-

mare," says AR Demolition managing director Richard Dolman. "The only solution on a contract like this is sheer firepower, tackling heavy-duty concrete with equally heavy-duty breaking power. We are clearing the site in advance of the construction of a new supermarket and cannot afford delays. So we chose a breaker that was as reliable as it is powerful."

AR Demolition's tool of choice is the Rammer 5011. Mounted on a demolition specification Volvo EC460 CL hydraulic excavator, the 4.75-ton breaker

utilizes maximum power with an operator-selected slow impact rate to provide optimum breaking and concrete shattering power.

A great tool

"The Rammer 5011 is a great tool," says Dolman. "Used and looked after properly, Rammer hammers are real thoroughbreds. They are a world leader for a reason."

While the Northampton Chronicle works required firepower, a simultaneous partial demolition contract at the nearby Bridgnorth Aluminium processing factory



to facilitate a ground-up internal rebuild. All of this work takes place in a factory, parts of which are to remain active throughout the demolition process. So while the foundations are equally challenging here, our primary concern was precision, and the control of noise and vibration.

To meet these specific criteria, AR Demolition sums up the company's approach to business and staff re-

"The Rammer 3288 allows us to penetrate the ground precisely where we need to without causing damage to Our operators love the Rammer hammers and are genuinely anything around us," says Dolman. "And once the ground is penetrated, the 3288 allows us to hit it with maximum

AR Demolition's purchase of the two Rammer hammers

equipping them with the very best equipment available. excited when they get an opportunity to use them. They are now an integral part of our equipment fleet. Having experienced them for themselves, I really don't think I could convince our operators to switch to another hammer now.



U.S. Concrete Cutter William Greenwood.

The Concrete Cutters Pride

William Greenwood, working for Aaxiom Concrete Sawing in Boston, Mass, shares some of his thoughts about being a concrete cutter.

To me, the Concrete Cutting Nutters Group on Facebook shows a worldwide pride in their work when individuals post on Facebook. As a concrete cutter you are exposed to equipment that you've never seen before, new ways to complete projects, equipment that has been modified by brilliant individuals like Paddy Brosnan.

I love my job and this is how I can describe it. The phone rings. A job needs to be done, but first calculations. I take the information to do my take off. I crunch the numbers with the feeling of trying to beat the other three or five companies that I am bidding against. The adrenaline is pumping while numbers are flying through my head when estimating the work and what time it will take. I am imagining how I should approach the job with the task of making it the fastest and safest way.

The calculator is clicking constantly. I shave a little here and there and add a bit at the end. Pulling up dsm and typing in the job information. Typing feverishly to get the proposal in on a timely basis. Scanning and e-mailing it to the client. Now it is just to wait for a hopefully positive answer. I wait and wait and finally get the call to negotiate my numbers. Little bickering back and forth and finally the words I have been waiting for. 'Ok the job is yours'. Then receiving the contract, getting it signed and insurance certificate and sending it.

Then starting the job, cutting, hitting steel and sparks fly on occasion, demotion by hand and with Brokks. Removing concrete, coring holes, then we pick up some extra work down the street cutting some asphalt. Asphalt, how I love the power of the saw slicing through the pavement, the smell of the asphalt getting cut. It's like a game trying to out cut the same as the previous day. Finishing the jobs from start to finish and just before you leave you look it over, feeling proud of the clean cut straight. All the cuts I made and at some instance I had to make some radius cuts. That was a challenge.

As I walk away moving on to the next job and slightly turning my head back a little tear pops out from your eye with pride. Maybe in 25, 50, or even 100 years from now someone's going to see my cuts that I made with pride today. That is the concrete cutter's pride for me. Maybe they will say that the guy who made that cut back then had to be a professional. Then reality comes into play and I think that the English boys would have stitched drilled instead. The Southern boys from the U.S. would have hand sawed it and the rest of the world would have track sawed it, but Tengo, he would have head-butted it.



Dynaset sales manager Anni Karppinen and general manager Reijo Karppinen are extremely satisfied with the quality of the Blue Hydraulics product line.

Blue Hydraulics Boosts Dynaset

Dynaset's Blue Hydraulics product line has contributed to a 7 percent growth in turnover in 2014, the company claims. The new product line covers 17 products and a large number of technical innovations for existing Dynaset equipment.

"Our customers value our innovative technology and the premium quality of the products," says Dynaset sales manager Anni Karppinen. "There is plenty of demand for hydraulic equipment that increases productivity of mobile machinery also during slow economic growth. Dynaset hydraulic equipment brings savings in operating costs and diversifies features of mobile machinery. This creates new opportunities for our customers to grow and develop businesses."

Dynaset equipment sales grew in all continents. The highest growth rates were achieved in European and North American markets. All the internal reforms, new products and positive momentum among dealers and customers provide good outlook for 2015.

"Developing technology and expanding the product range serve single machine users and large scale customers," says Dynaset general manager Reijo Karppinen. "Contractors may find new revenue opportunities by equipping mobile machinery with multiple Dynaset hydraulic equipment. The company's broad product range and variety of applications provide fertile ground for the development of dealers' businesses as well. Dynaset equipment's suitability for different sectors allows access to the world of possibilities."

www.dynaset.com

Chicago Pneumatic's New Compressors

International construction equipment manufacturer Chicago Pneumatic has introduced new versions of its CPS 11.0 (7bar) and CPS 11-12 (12bar) portable compressors for the European market. The compressors feature EU-compliant Stage 3B engines and a new electronic control panel, which makes them easy for users to operate, monitor and service. The two compressors are perfect for surface drilling, abrasive blasting, and ice blasting, and excel in road work and shotcrete pumping. The 174 psi (12bar) variant is also suitable for special applications such as fibre optic cabling, with the higher working pressure enabling the CPS 11-12 compressor to push cabling through longer pipeline distances without pressure loss. The CPS 11.0 and CPS 11-12 compressors feature new EU Stage 3B emission standard- compliant Deutz engines. The compressors' engines uses exhaust gas recirculation technology in combination with a diesel oxidation catalyst and, for the CPS 11-12 a diesel particulate filter, to reduce the output of particulate matter and nitrogen oxides. Another major new feature is the central electronic controller that provides operators with an improved user interface and straightforward control and monitoring options. The electronic controls also make it easy for operators to quickly start and stop the compressor and regulate automatic cool-down after the unit has been running at full load. With 46 gallon (175 liter) fuel tanks the compressors can run non-stop at full load for an entire shift without refuelling. A fully automatic step-less speed regulator also means the engine speed can be adapted to air demand. Additional options include a braked undercarriage with a fixed or height adjustable tow bar, a non-braked undercarriage with fixed tow bar, jockey wheel, leg support, and several towing eye options.

www.cp.com



Water Cannons From Duztech

Swedish dust suppression machine manufacturer Duztech launched two new compact, lightweight mist cannons at INTERMAT 2015 in Paris. The small version T300 RMT connects to a 16A socket and throws the mist nearly 100 feet (30m), while the larger T400 RMT uses 32A and throws the mist more than 131 feet (40m). The water mist is extremely fine, making it more effective against airborne dust. Both models include remote control of all functions, allowing users to set up an automatic swing operation to distribute mist over large areas. The models also feature low power consumption and adjustable water flow.

www.duztech.eu









ARIX Generation 3

Advanced multi-layered diamond segments with precise distribution of diamond particles

THREE GENERATIONS BEYOND

TURN YOUR DREAMS INTO REALITY

Meet the third innovation of the original diamond array technology that changed the industry in 2005. ARIX G3, superior performance you can see and feel.





sawing to avoid overcutting at corners.

With a 230/400V

Husqvarna motor, the K 6500

Chainsaw easily manages deep and narrow cuts, as

well as square corners. Weighing only about 20 lbs (9.1kg), the power cutter is perfect

power packs. LEDs help the operator work with optimal power, and provide an alert if there is a risk of motor over-

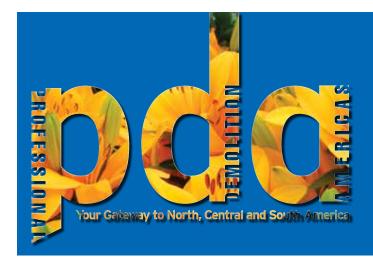
> load. With three bar lengths to choose from-11.8 in, 13.8in, and 15.7 in (300mm, 350mm, and 400 mm), users can cut to a maximum depth of 17.7 in (450 mm).

Apart from being efficient and lightweight, K 6500 Chain also embodies the other characteristics from the products of the PRIME range—a powerful electric motor, no stiff hydraulic hoses, low vibrations, and excellent ergonomics.

www.husqvarnacp.com

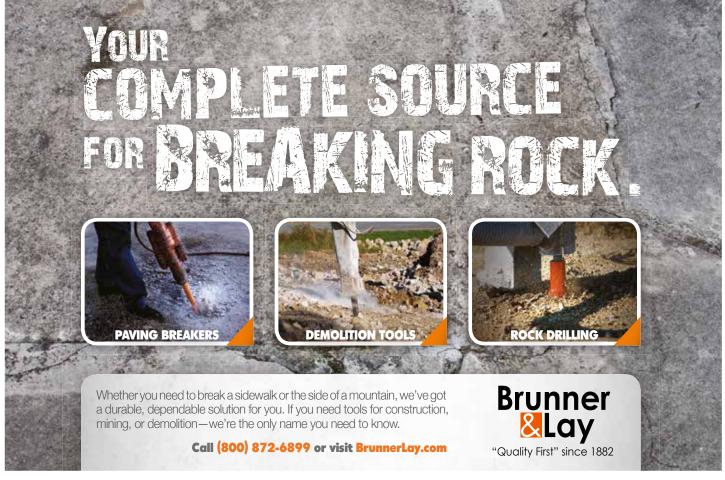






Read PDa Magazine Online, On Your Smart Phone, Tablet or Computer www.pdamericas.com





Demolishing Deadlines

NASDAQ Terr

Three weeks. Twenty-one days. Five hundred and four hours. However you want to measure it, it's not much time to complete a complicated indoor demolition project. But that's all the time allotted for knocking down and clearing out a terrarium in the center of one of America's most historic structures. the Philadelphia Stock Exchange, now known as the NASDAQ OMX PHLX building. The NASDAQ Stock Market is an American stock exchange and the second-largest exchange in the U.S.





While the NASDAQ is known to move fast, the company selected for demolition would need to move even faster. Every second would count, and there would be no time for indecision or speculation regarding equipment. No problem for Pete Punchello, superintendent for Delta BJDS of Southampton, Pa. He knew exactly what he wanted – and what Delta needed – to win the bid and get the job done on time.

Compact Demolition

Delta BJDS oversees and executes small- and large-scale insulation and demolition jobs up and down the East Coast. BJDS is an acronym for the family of Delta's founder, Robert Lavelle Sr.; Bobby; Jimmy; Damien; and Sally. The family-centric company employs about 100 people, but for the NASDAQ project sheer manpower wasn't going to cut it. Punchello had been interested in adding compact, remote-controlled Brokk demolition machines to Delta's fleet for years. He'd heard from others in the industry how effective they were in challenging situations. He knew they were compact enough to fit into the tightest of spaces, yet powerful enough to take on the most stubborn materials. And, he knew they could replace several workers operating handheld equipment.

"When you do interior demolition, you need to have the right tools to get the job done efficiently and effectively," Punchello says. So, with the bid in front of him, he placed a call to Randy Rich, the Mid-Atlantic sales representative at Brokk, Inc.

Time is of the Essence

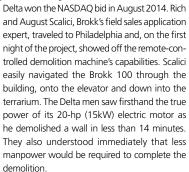
The eight-story, low-rise building was constructed in 1981 and totals 456,922 ft2 (42,450m²). Within the building a 30-foot-tall terrarium had to be knocked down. Mounds of dirt, several trees, and some water lines had to be torn out. And because several offices surrounded the space, crews would need to work 12 hours each night to avoid disturbing NASDAQ employees. That cut the number of potential working hours from 504 to 252. They also would have to remove all the debris without waking the building's neighbors. Last, but certainly not the least of the challenges, a small passenger elevator provided the only access to the project.

To complete the job with tools it already had, Delta would need to use at least four small utility loaders, two of which would have hydraulic hammer attachments. In addition, Delta would



not be allowed to use diesel-powered machines because of the exhaust fumes. Rich recommended the Brokk 100. Not only was it small enough to fit into the elevator, but it also had the power to complete the job quickly. And since the electrically-powered machine does not emit any noxious exhaust, it was ideal for the indoor project. Punchello was sold.

Proof in the productivity



"They realized that remote-controlled machinery would save them immense time and manpower compared to using jackhammers and chipping hammers," Rich says. "And from

that moment on, the Brokk machine ran every night until the job was done." $\,$

One operator was able to handle the Brokk 100 and wield an Atlas Copco SB 152 breaker attachment and a 2.1-cubic-foot bucket in turns. "One of our operators, Danny Kell, was the main user of the remote-controlled equipment," says Punchello. "It was amazing how quickly he adjusted to using the machinery." Kell tackled both vertical and horizontal tasks almost effortlessly, and, with the machine, was able to attack the overall project faster and longer than any human ever could.

"Imagine trying to hold a 90-lb (41kg) tool for 12 hours," says Punchello. "You could never have done the amount of vertical work that needed to be demolished in such a limited timeframe. With the remote-controlled machine, the demolition was easy. Removing





the debris out of the building – that was the challenging part."

Punchello was able to repurpose crewmembers who otherwise would have been wranging handheld tools. Some cut rebar and others used a utility loader to move the debris from the site. They hoisted the excess materials out of the work area, then dropped them onto a loading dock. From there, another crew transferred the debris to a fork truck for dumping. They filled more than six dumpsters of debris each night for seven nights straight.

When all's crushed and done

Delta met the tight deadline, and the remote-controlled equipment saved wear and tear on Punchello's crew in the process. Overall, he said, the remote-controlled demolition machine made for a much more organized, safer and less physically trying project.

"If I had chosen to have any other type of equipment down there, trying to do what the Brokk 100 did, it would have been a

constant headache," Punchello says. "I would have been constantly trying to fix things, but with the Brokk I didn't have to. The machine did everything we needed and wanted it to do."

Three weeks. Twenty-one days. Two hundred fifty-two hours. However you want to measure it, the Brokk 100 made it possible for Delta to do the job well and get it done on time.





World of Concrete 2015 virtually overflows with optimism.



BOASTING ITS LARGEST TURNOUT IN SIX YEARS, World of Concrete 2015 celebrated everything good about the construction industry, particularly the generally healthy U.S. economy that experts feel has sufficient staying power to last through 2016 and perhaps beyond.

Imressive, but could have been even larger

The final numbers were as gratifying for the show's organizers as the warm southern Nevada sun was for those able to escape the clutches of what's been a brutal winter in many parts of the U.S. The event drew 55,779 registered professionals, up from just over 48,000 in 2014 (a year when ConEXPO competes for concrete companies' travel dollars). Approximately 1,460 exhibitors occupied more than 675,000 net square feet of space at the Las Vegas Convention Center, also up 15 percent from 2014. Impressive as those figures are, though, they could have been larger.

"A lot of people we regularly see every year didn't come because they are too busy," said Ruwac USA Sales Executive Eric Potorski. "For many people, 2014 was a record year."

That was certainly the case for Hilti USA, which enjoyed its fourth consecutive year of double-digit growth according to Hilti North America President Cary Evert, adding that the company wants to keep that streak going. As part of the relocation of the company's corporate office from Tulsa to Dallas, Hilti is adding a new test center to support a planned 80-percent increase in research and development.

"We will roll out more products in the next three years than in the last 10," Evert said, noting that the focus will be on making equipment simpler, easy-to-use, and smarter. "We're also making use of mechatronics to boost the productivity of what are already good drills."

Hilti's typically expansive display at World of Concrete included the updated TE 1000-AVR breaker with HiDrive technology that helps deliver 19 lb ft (25.8J) of impact energy. For precision work, a Power Reduction Switch can dial back that



THERE

Above new road saws from Husqvarna and below first class concrete cutting systems from Italian Cardi.

power by as much as 30 percent. An SR motor helps ensure stable performance with power fluctuations from generators or extension cords, while a three-chamber sealing principle extends the tool's life and dependability.

The TE 1000-AVR and other Hilti breakers can be matched with a TE-SP Wave Chisel, a new-wave design that reduces friction between the chisel body and base material, increasing speed by up to 30 percent. The chisel also leaves a wider opening for fast debris removal, and reduces the likelihood of the chisel sticking or breaking.

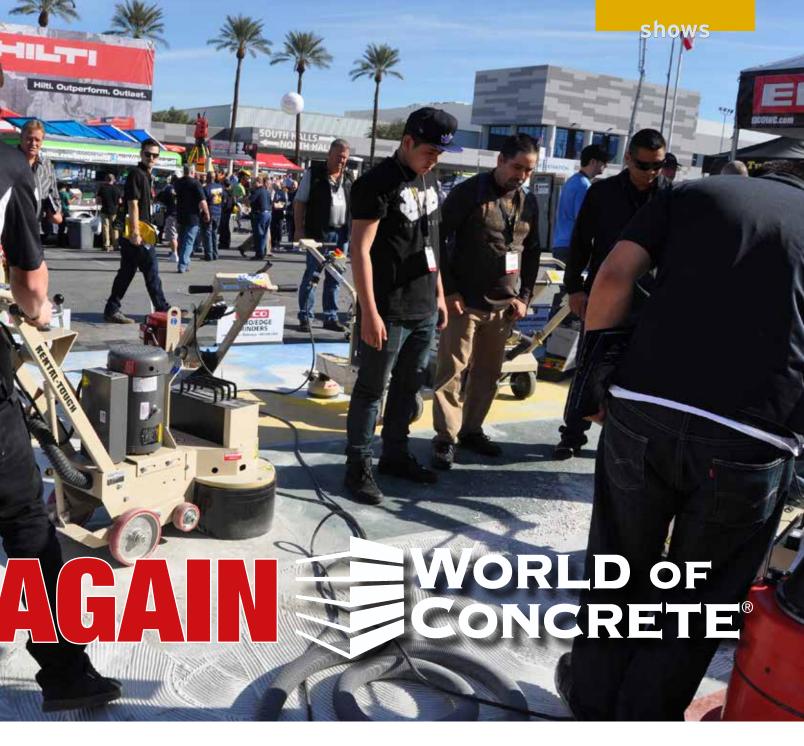
Hilti also displayed its new DST 10-CA wall saw system



with Cut Assist technology—an electronic "assistant" that automatically adjusts the saw while making cuts. Operators can monitor the DST 10-CA's cutting depth in real time via a display in a remote control unit.







Husqvarna Construction Products contributed with a number of new products and one of the major innovations was that the Prime concept is complete with a new low weight high cycle chainsaw K 6500 CHAIN. The saw has a cutting depth of 454

mm. Husqvarna also launched a new and stable drill stand, DS 900, for drilling with really large diameters. Another innovation was the new remote controlled floor grinder PG 820 RC that you can read about below. Husqvarna also showed three new







www.pdamericas.com • 2015 • Issue 1 • F





Some representatives from the Concrete Cutting Nutters Association.



accessory packages for demolition robot DXR range. Other news for the US market was the floor grinders PG 450, PG 400 and PG280 and the new dust extractor DC 1600. Further Husqvarna also showed the new floor saws FS 7000 and FS 6800 also the power cutters K 970 RING, K 970 Chain, K 970 Rescue and K 970. Also the new diamond tool series Vari-Cut for power cutters and small floor saws were displayed.

Also displaying upgraded breakers was Chicago Pneumatic, which has transformed its CP 1230 and CP 1240 pneumatic models into the CP 1260 and CP 1290, with ergonomically designed handles to reduce operator fatigue; a streamlined, flatter profile for improved operator visibility; and new durable polyurethane front head springs that reduce wear and extend the life of the breaker and its internal components. The 63 lb (28.5kg) CP 1260 delivers 1,300 powerful blows per minute (bpm), while the 81 lb (36.7kg) CP 1290 delivers 1,100 bpm for heavier demolition work.

For bigger breaking applications, Atlas Copco debuted its new three-model Essential (ES) line for carriers in the 2.2- to 13-ton weight classes. The compact ES breakers offer better visibility and easy maneuverability in tight spaces. A built-in tap for compressed air keeps water out of the case should the unit be submerged, while another tap allows water to be channeled directly to the chisel to keep dust down.



As is custom at World of Concrete, the Convention Center's Central Hall served as a massive showroom for motorized construction equipment. Punctuating the displays were some new models, such as Kubota's SSV-Series skid steer loaders, including the 64-hp (48kW) SSV65 and the 74-hp (55kW) SSV75. Both are powered by an EPA Tier 4 certified four-cylinder Kubota diesel engine, and feature standard two-speed travel and optional high-flow hydraulics.

The SSV65 has a rated operating capacity of 1,950 lbs

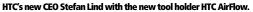














shows

(884.5kg) and bucket breakout force of 4,839 lbs (2,195kg); the SSV75 has a rated operating capacity of 2,690 lbs (1,220kg) and bucket breakout force of 5,884lbs (2,669kg). Two other models will be added to the SSV-Series next year.

Also joining the pool of Tier 4 Final machines is Caterpillar's new M-Series small wheel loaders—the 926M, the 930M, and the 938M. All three are powered by a new Cat C7.1 ACERT™ engine with a clean emissions module designed to require no operator intervention or disrupt work cycles. Though larger than the plants found in the M-Series predecessor models, the engines offer a 35-percent improvement in gas consumption when in standard operating mode.

Nearby, Bobcat showed the new T450 compact track loader with a 2.4-litre, 61-hp Tier 4 Final engine and a body width of only 56 inches when paired with a bucket. A two-speed drive system gives the T450 a maximum speed of 77.3 mph (11.7kph) in low range, and 11 mph (17.7kph) in high range. Bobcat also introduced its 13.9-hp (10kW) zero tail swing E20 compact excavator, also with a Tier 4-compliant motor. The E20 has a maximum reach of 14 feet (4.2m), dig depth of 8.5 feet (2.6m), and dump height of 8.75 feet (2.7m). A fully retractable rubber track undercarriage can narrow the E20's overall width from 53.5 inches (1,359mm) to 39 inches (991m). While larger machines look to reduce emissions of their motors, manufacturers



The Superabrasive stand.





















Above the new Pentruder HF chain saw and below the new HF chain saw from Husqvarna.



of smaller concrete cutting tools are seeking alternative power sources. Stihl introduced the world's first battery-powered cutoff saw, the TSA 230 Cutquik. Weighing approximately seven pounds less than a comparable gas-powered saw, the TSA 230 runs on a 36-volt lithium-ion battery pack and includes a built-in water connection for wet cutting. 9-in (229mm) cutting wheel for a maximum cut depth of 2.75 in (70mm). A single charge provides 15 minutes of full cutting time, with a charging cycle of as little as 25 minutes. "With two batteries and a quick charger, you can run all day," said Dan Hall, Stihl's manager of dealer services, cautioning that the TSA 230 is designed mainly for small cuts with minimal rebar. "If you're doing long cuts with a lot of rebar, it's probably best to use a gas-powered saw."

Similarly, ICS debuted its new 701A pneumatic chain saw, which can produce 6 hp (4.5kW) at 90 psi (6.2bar). "Pneumatic equipment is not a major market but there is demand for it, especially among utility companies because there are no fumes or risk of spilling hydraulic fluid," said ICS senior marketing manager Joe Taccogna. "It's great for ductile iron pipe, and will work with any of our ProForce diamond concrete chains. We're currently performing the tests required to sell this model in Europe." Taccogna added that the summer of 2015 will see the introduction of a new Pentruder high-frequency saw, the first new product since ICS became the exclusive North American distributer of Pentruder products last year. "It will run on a Pentruder power pack, and handle up to a 25-inch (635mm) guide bar," he said.

Great times for grinding and polishing

If the overall construction and demolition business is good, the concrete grinding and polishing segment is nothing short of great. "Busy," is how Kevin Partin of Diamatic summed up the current market, citing a large number of conversion projects out there. "A lot of national retail chains and educational institutions are retrofitting their buildings with polished concrete," he said.

That's why Diamatic introduced the new 17-in (432mm) BMG-435P gas-powered grinder. With a tooling speed of 500-900 rpm, the BMG435 P is ideal for removing old coatings or adhesive residues, to smooth or flatten concrete slabs including curled expansion joints, or correcting surface imperfections. Diamatic also introduced the new 22-inch (559mm) 555 PRO planetary grinder, which can be easily disassembled for quick relocation to basements and other hard-to-reach areas. The 555 PRO uses 9-inch (229mm) diameter tools and a tooling speed range of 350-1,100 rpm. World of Concrete also provided concrete surface contractors their first chance to test Scanmaskin's new Scan Combiflex 800 DSP, featuring a full-color touch screen display that provides feedback to the operator in real time. The SC-800 DSP aids both veterans and newcomers by providing parameters to guide them through every step of a job task, from matching the right diamond tool to a particular surface to finding the proper forward speed to prevent excessive wear.





Other grinding/polishing highlights at World of Concrete included Husqvarna's 32-in (813mm) PG 820 RC, the world's first remote-controlled concrete floor grinder with Dual Drive TechnologyTM, promising significantly higher productivity and better work results with more ergonomic operation and effortless transportation to and from the work site. Similarly, NewGrind's 14-in (356mm) RHINO RM150 is designed to separate into two or three pieces for easy fitting into a car trunk. The RM 150 is





available in 1.5 hp and 3 hp models.

Kutrite showed its new Conqueror 32, a 905-lb (410kg), three-headed polisher with a 32 inch (813mm) footprint. Other features include front and rear lights for work in dimly lit areas, an adjustable handle, and valves for more precise water control. HTC touted its AirFlow™ EZ tool holders that create an increased and controlled air flow around the tools, keeping them cool and channeling airborne dust into the vacuum intake. This system helps extend tool life and minimize cutting rate, while also providing for more effective dust removal.

Speaking of dust removal, several new and enhanced vacuum systems were exhibited at World of Concrete. HTC's updated 80 iD II offers a 15-percent improvement in efficiency and an innovative "duck-bill" bag valve that increases capacity by 30 percent.

Ruwac showed its Red Raider XLT combination vacuum and separator system, that provides 300 ft³/min (8.49 m³/min) of suction and 30-lb (13.6kg) bagcapacity. A beefier, continuous duty version of the system has a custom-built turbine rated at 100,000 hours. Potorski explains that the equipment was originally designed for industrial and manufacturing settings.

"More and more grinding companies are working 12-hour shifts," he says. "With the continuous duty version, there's no need to shut down. The next crew can come in and keep working."In keeping with tackling larger dust management issues, Dust Control Technology formally announced its largest-ever design—the DustBoss® DB-100. The new dust suppressor has a range of more than 328ft (100m), giving it ample reach to cover material stockpiles up to 300 ft (91.4m) high, and can cover a massive area of 280,000 ft² (26,000m²) from a single location.

Safety is more than just a fad

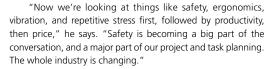
While good economic times may have dominated the buzz at World of Concrete, an equally important, perhaps more pervasive focus was on the operator. Nearly every new product demonstration stressed some element of improved safety, comfort, and assistance to help operators not only be more productive and produce higher-quality work, but also do those tasks more comfortably. And judging by the questions many contractors were asking, equipment manufacturers are being pressed to demonstrate that their claims of "safety" and "ergonomics have to be more than just words.

Joe Gann, Superintendent with Cupertino Electric, San Jose, Calif., spoke for many when he noted that productivity is no longer the number one consideration in buying a new tool.













II Saw the Obvio That No One Else

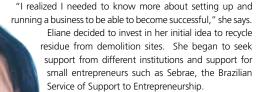
Eliane Nobrega saw an opportunity when no one else did, or at least didn't admit that there was one: a careful recycling of demolition with total transparency in her business towards her clients.

Professional Demolition Americas • Issi

In 2010 she worked as a home cleaner in São Paulo, Brazil. Today Eliane Nobrega is the owner of one of the fastest growing demolition and recycling contractors in Brazil, Nobre Demolidora, going from strength to strength, with a growth of 300 percent in revenues in 2014 compared with the previous year. How was this possible?

Construction waste became her business

When Eliane was a cleaning lady, coming back from work every day, she noted that a lot of the things from demolition sites, like doors, windows, furniture, metal, wood, etc., was left by the street for disposal. Eliane understood that if she could recycle all this it would pay off. Eliane's dream for a long time had been to become an entrepreneur, an owner of a proper company. In 2010 she first started a small sawmill, but the business was not doing so good.



"I tried to find out what were the weaknesses of the competition, the demolition contractors, and it was not hard," Eliane says. "This would be great advantage for me. Instead of being 'destructive' and to break down things, my company's mission was instead to carefully dismantle and renovate structures."

What Eliane's company started to do was taking what other demolition companies wasted and recycling it. The useful stuff was carefully dismantled and sold, and a portion of the returns

were paid back to the clients.
A total transparency is what
Eliane prefers.

"Other demolition contractors called me crazy when I asked to take care of their waste, recover it, sell it and return the money to the contractors," she remembers.

> Eliane Nobrega



Eliane was outraged to hear phrases like "honest work does not bring wealth," and decided to prove the opposite. "If I am totally transparent with my clients and return to them the money I get from the recovery of materials, I will surely make a difference," she says. And a difference she made.

The breakthrough

"At first, I bought a mobile phone for my new business that I always kept with me, as at this time I still was working as a cleaning lady," Eliane recalls. "When that phone rang I knew it was business. So I answered 'Nobre Demolidora, Bom Dia. What can I do for you?' At some point my boss overheard me and said with a smile, 'I can see that you will not be working for me for much longer.' And it actually happened rather soon that I had to leave my cleaning job to take care of my own business." Eliane continues and explain that at first her company served mainly small and medium-sized demolition job sites. But at one stage they were offered to participate in a bid to demolish a large mall covering more than 53,800 ft² (5,000m²).

"We examined the project and saw that the roof and its structure were good and sellable, although the structure that sustained it would be compromised," Eliane says. "My idea was to make the demolition job, sell the roof and its structure, and the value of the sales would be discounted to my client less our handling and administration costs."

Not long after making her offer, Eliane received a call from the client asking how she would do it, and why here price was so much lower than the competition. "The client was even thinking about excluding us from the bid because they considered us relatively inexperienced, and our price was so different," she says. "They believed we did not know what we were doing and also that we would lose money on this job, and that would cause problems for them. So we went to see them, explained again how we would complete the project and we won the project after that."

This event generated a lot of exposure and was a good promotion for Nobre Demolidora. The story spread quickly, and the client recommended them to many other similar companies in need of demolition help. This particular job and others that came as a result helped Nobre to grow by 80 percent during the





second year of the company's existence. Today Nobre Demolidora is a well known demolition contractor in Brazil. Their major projects include the demolition of the Latin American Memorial, a large museum in São Paulo that was destroyed by a large fire; demolition jobs at the Port of Santos; and a number of other major demolition projects for large national and international companies. Nobre Demolidora is today well known both through media and within the national demolition sector of Brazil. "Today I have to think twice before entering a competition for a bid, because we usually win 60 to 80 percent of the competitions we participate in," Eliane says.

80 percent recycled

Approximately 80 percent of materials from Nobre Demolidora's demolition projects—iron, aluminum, and copper—are intended for recycling and is transformed into raw materials again. The wooden structures are reclaimed and transformed into new products such as doors, cabinets, and windows, and resold in a warehouse near the premises used by the company for screening materials. In 2014, the company recycled close to 1.5 million tons of iron, metal and steel; 500 tons of glass and plastic; and 1,800 tons in reclaimed wood. "We have also built up a huge network of registered buyers that are interested in materials that we gather

in our demolition projects," Eliane says. "We were able to set up a business that is good for all parties involved. Our clients win, as they get back the value of the material we can recycle or resell for them. We win on the project itself, and we also make money on items that we can recycle and sell in our warehouse."

Expansion

Currently Nobre Demolidora has 50 employees, a fleet of container trucks, two large demolition excavators with long-reach booms, mini-excavators plus a number of attachments, and handheld demolition equipment. A lot of machinery and equipment are also rented from third party when needed. Clients include large shopping centers in the São Paulo area, public enterprises, and government institutions as well as large national and international companies such as Bayer, Ford, Mitsubishi, and Valeo to name a few. Having built up a platform in São Paulo, Nobre Demolidora inaugurated a branch in Rio de Janeiro in 2014 to better serve customers in that region. Many people think of Eliane Nobrega as the model of a businesswoman that Brazil needs in this time of crisis of credibility caused by poor management in both companies and the public sector. Yet she is not afraid of a new economic crisis. "Brazil has experienced many crises," Eliane says, "and we have always found a parallel way to work besides the crises and we have always come out stronger then before the crise started."

It is a phenomenon called Jeitinho Brasileiro: that the bumblebee is not supposed to be able to fly due to its weight and the tiny wings. But the bumblebee does not know that so it fly anyway. And Eliane and her company Nobre Demolidora is a living proof of that unconventional manner works.

"We work a little bit backwards sometimes," Eliane says.

"There have been cases when we actually paid our clients to carry out the demolition work for them. But of course what we demolish belongs to us and we recover the material and resell it.

With this kind of growth pace Brazil is going to see a lot more of Nobre Demolidora and its founder, the amazing Brazilian entrepreneur Eliane Nobrega.

www.nobredemolidora.com.br







O óbvio que ninguém via

Eliane Nóbrega enxergou oportunidade onde ninguém via – ou, pelo menos, não admitia que existia: a reciclagem cuidadosa das demolições. E a transparência nos negócios.

Até 2010 ela trabalhava como faxineira, diarista, em residências de São Paulo, Brasil. Hoje é dona de uma das mais conceituadas demolidoras do país, a Nobre Demolidora, que vai de vento em popa, com crescimento de 300% no faturamento de 2014 comparado ao ano anterior. Como isso foi possível?

Quando era faxineira, ao voltar do trabalho, diariamente, ela notava que na maioria das demolições que encontrava, pelo caminho, havia desperdício de grande quantidade de materiais de boa qualidade, como portas, janelas e móveis, além de metais e madeira. E pensou: "Se aproveitassem isso tudo, poderiam economizar muito".

Seu sonho era ser empreendedora, dona do próprio negócio. Começou em 2010 com uma pequena serralheria, mas não obteve sucesso. "Percebi que precisava conhecer mais do negócio para poder dar certo", conta. Assim, decidiu investir em sua ideia inicial, e começou buscando apoio em instituições de capacitação e suporte a pequenos empreendedores como o Sebrae, Serviço Brasileiro de Apoio ao Empreendedor.

"Procurei saber quais eram os pontos fracos da



Eliane Nobrega





concorrência e não foi difícil perceber que este seria nosso grande diferencial: "em vez de ser uma 'destruidora', minha empresa seria uma 'desmontadora', aproveitando tudo o que as outras jogavam fora e, melhor ainda, devolvendo ao cliente o retorno obtido com a venda dos materiais retirados da demolição".

"Me chamaram de louca quando eu dizia que queria recuperar os materiais das demolições e devolver o dinheiro para os contratantes", lembra. Ela ficou indignada ao ouvir frases como "trabalho honesto não traz riqueza", e resolveu provar o contrário. "Se eu for totalmente transparente com meus clientes e devolver para eles o dinheiro que obtenho com a recuperação dos materiais, certamente terei um diferencial único". E assim ela fez.

"No começo, comprei um telefone móvel que levava comigo. Na casa que trabalhava como faxineira, eu atendia o telefone dizendo 'Nobre Demolidora, bom dia!'. Minha patroa, ouvindo isso, dizia: 'estou vendo que em breve não vou mais ter você por aqui'. E foi o que aconteceu, pois logo tive que deixa-la para cuidar do meu próprio negócio".

"No início atendíamos obras de pequeno e médio porte. Até que fomos participar de uma concorrência para demolir uma grande cobertura, de 5.000m2, de um shopping. Examinamos tudo e vimos que o telhado e sua estrutura estavam bons, apesar da estrutura que o sustentava estar comprometida. Encontramos um interessado em comprar aquilo tudo e incluímos o valor previamente negociado como desconto para o cliente.





Recebemos um telefonema dos organizadores da concorrência nos convidando para explicar como e porque nosso preço estava tão abaixo das demais concorrentes. Pensavam em nos excluir por nos considerar inexperientes, acreditando que não sabíamos cobrar e que teríamos prejuízo. Então fomos lá, mostramos nosso modo de trabalhar e ganhamos a concorrência", relata.

Este episódio gerou um efeito de propaganda "boca-a-boca" e a Nobre passou a ser recomendada pelos clientes já atendidos, o que ajudou a apresentar crescimento de 80% no faturamento em seu segundo ano de existência. A demolição do Memorial da América Latina, um grande museu de São Paulo destruído por incêndio, e obras no Porto de Santos e para grandes empresas nacionais e internacionais vieram coroar o sucesso de sua estratégia, colocando a Nobre Demolidora em evidência na mídia e no mercado em que atua.

"Hoje tenho que pensar bem antes de entrar em uma concorrência, pois costumamos vencer de 60% a 80% das concorrências que participamos", conta Eliane Nóbrega.

Aproximadamente 80% dos materiais provenientes das obras, como ferro, alumínio e cobre, são destinados à reciclagem e transformados em matéria-prima novamente. Já a madeira é recuperada, transformada em novos produtos, como portas, armários e janelas, e revendida em um showroom junto ao depósito usado pela empresa para triagem dos materiais.

Somente em 2014, a empresa reciclou perto de 1,5 mil toneladas de materiais como ferro, metal e aço, além de outras 500 toneladas de vidros e plástico. No mesmo ano foram processadas 1,8 mil toneladas em madeira recuperada, transformada em novos produtos (portas, móveis, etc.) e revendida em seu

Diamond Tools and Equipment



Technologies that deliver the perfect blend of power, precision, efficiency and safety.







Concrete Chain Saws | Diamond Chains | Wall Saws Wire Saws | Diamond Blades | Diamond Wire Core Bits | Ductile Iron Pipe Chains

Call us at 800.321.1240 or visit us on the web at icsdiamondtools.com



©2015ICS | Blount, Inc. All rights reserved

próprio depósito.

"Além de engenheiros e técnicos capacitados para avaliar as obras, tenho excelentes marceneiros, que se tornaram especialistas em reaproveitar e reciclar tudo. Também conto com uma rede de compradores cadastrados, interessados nos materiais que conseguimos reunir nas demolições. Conseguimos, com a bênção de Deus, montar um negócio que é bom para todas as partes envolvidas, pois ganha o cliente, ganhamos nós e ganham os que compram os materiais recicláveis ou já reciclados por nós", explica. "E, claro, ganha o meio ambiente", conclui.

Atualmente a Nobre Demolidora conta com 50 colaboradores, tem uma frota de três caminhões caçamba, uma mini escavadeira, duas escavadeiras hidráulicas, e contrata outros veículos e equipamentos de terceiros conforme a necessidade de cada obra. Entre seus clientes, grandes shoppings centers pau-

listas, empresas públicas e governo, além de grandes empresas nacionais e internacionais como Bayer, Ford, Mitsubishi e Valeo, entre outras. Após conquistar seu espaço em São Paulo, inaugurou em 2014 uma filial no Rio de Janeiro, "para atender melhor os clientes que nos querem lá".

Eliane Nóbrega é o retrato do empresário que o Brasil precisa nesse momento de crise de credibilidade provocada por má gestão em empresas e no setor público do país. Ela não teme uma nova crise econômica. "O Brasil já passou por muitas crises. E sempre saímos mais fortes", diz, com a confiança de quem cresce 300% em um ambiente de economia estagnada e que pode se gabar de feitos como este: "temos casos de obras em que, em vez de receber, nós pagamos para o cliente". O faturamento de R\$ 3,5 milhões em 2014 – 300% maior que o de 2013, vale repetir - confirma o acerto da estratégia desta incrível empreendedora brasileira.

Husqvarna presents a new package set-up for DXR

The brand new set-up for DXR demolition robots consists of three packages, each of which provides increased precision, performance, and protection in all kinds of demolition work, especially in high ambient and radiant temperatures.

The Additional Feature Package allows the user to precisely control one extra hydraulic function, such as axial rotation of grapplers and shearer. The user also has access to additional tools like vertical mills. Cylinder protection is included in the additional feature package to protect against bumps and blows.

The Cooling Package holds the same features as the Additional Feature Package, but also contains a cooling kit. The Cooling Package is compatible with DXR 2/300 series, and can work continuously with full power on work sites where the ambient temperature (convection heat) is up to 131°F (55°C), enabling higher productivity and efficiency.

The third package in the set-up, the Heat Protection Package, can be used on DXR 270, DXR 300, and DXR 310. Along with the benefits of the other two packages, it contains steel tracks, steel feet, heat-protected hydraulic hoses, special hydraulic oil, fire-resistant oil, and compressed air hose to breaker. This system protects vital parts from damage caused by both radiant heating and conduction

heating.



Concrete/Asphalt Recycler Utilizes Atomized Dust Suppression

Reclaimed Aggregates Inc. (RAI), a leading West Coast recycler of asphalt and concrete material from large demolition and road projects, operates one of the largest pavement salvage and reclaimed asphalt pavement (RAP) production facilities in Southern California. By upgrading the dust

RAI has successfully employed an atomized mist system to suppress dust in and around its Chula Vista plant.

suppression from a sprinkler system to a DustBoss® DB-45, operators report a substantial air quality improvement in the material receiving area.

Tremendous amount of dust

Dozens of dump trucks per day deliver recovered pavement from projects all over the San Diego area to the Chula Vista site. Material is offloaded onto a 40,000 ft2 (3,716m2) dry earth receiving area and immediately moved by front loader to the crusher or into storage piles.

"The offloading process creates a tremendous amount of dust, and that was causing issues for our neighbors who run large vehicle salvage lots," says Facilities Manager Robert Erautt. "At first, we tried to reduce the amount of dust with a sprinkler system. It just saturated the material, creating a lot of mud, but the dust still remained an issue."

Company officials reviewed the options and during their investigation discovered the DustBoss series of suppression equipment from Dust Control Technology, Peoria, Ill. They chose the DB-45 based on its range, which is well suited to the size of the area requiring dust management. The unit is



The company chose the DB-45 based on its range, able to throw the plume of atomized droplets 150 feet (45.7m) for effective dust control.

able to throw its atomized plume 150 ft (45.7m) to deliver effective dust control over a 12,000 ft2 (1,115m2) area. When equipped with optional 359° oscillation, the design can cover as much as 74,000 ft2 (16,875m2) from a single location. The mist is created by a stainless steel manifold with 18 brass atomizing nozzles delivering more than 80 PSI (5.52bar) of pressure, propelling millions of droplets with an 18,000 f3/min (510 m3/min), 15 hp (11kW) industrial fan. The DB-45 delivers a dense curtain of water droplets atomized to a 50-200 micron size range, which creates the greatest attraction to most dust particles.

"The size range is critical to avoid the 'slipstream' effect that large droplets from sprinklers have on airborne dust particles," explains DCT President Laura Stiverson. "In most applications, fugitive particles are generally around 50 to 100 microns in size, but water droplets from a sprinkler are much larger, often 2000 to 6000 microns. The velocity of the large sprinkler droplet affects the airflow. When an airborne particle approaches it, the flow often deflects the particle without a collision between dust and droplet."

In contrast, the atomized mist system creates droplets that are much closer in size to the dust particles, which encourages the necessary contact to bring dust particles to the ground. The sheer number of these miniscule droplets also increases the surface area available to contact airborne particles, without over-saturating the debris.

"The DustBoss made an immediate impact," Erautt continues. "On hot dry days — which we get a lot of around here — a little breeze can carry dust a long way. We just turn on the atomizer and you can see the mist pull the dust out of the air. The unit is on a metal carriage, so we can adjust its position if the wind changes, but generally it stays in one place. We leave the machine running most of the day if it isn't raining. We haven't had a single call from our neighbors about dust from the day we added it."

The push for greener, more environmentally sound construction methods is not just a trend; it has become a key component of lean and efficient business models for companies across the country. RAI is doing on-site recycling in projects from coast to coast, and dust suppression is a primary objective.

"Our goal is to reduce as much material going into landfills as possible," Erautt says. "Recycling material is just good business, but it shouldn't come at the expense of air quality. At our processing centers or out on a project site, a clean and efficient operation that includes dust control keeps the community and clients happy. It's good for everyone in the end."

www.dustboss.com



Meljer Diamond Tools BV toubergweg 34 Nt-6961 EK Eerbeek The Netherlands Tel: +31 313 659555 Fax: +31 313 656854 Email: info@meljertools.nl

MEIJER DIAMOND TOOLS

Drill stands



Drill stands with modular system, one key solution!



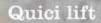


Segments for wall sawing, floor sawing and hollow core slabs



Accessories









The Mecca for Concrete Floor Grinding and Polishing Equipment

If you want to stay updated with the latest news and rumors in the concrete floor grinding and polishing industry, the World of Concrete show is the right place for you. Here are some updates from the industry.



For the last six years, the World of Concrete show was, to put it simply, overheated with equipment for concrete floor grinding and polishing. There were tons of brands that no one heard of before. There were many good products, and a lot of not-so-good ones. Since then this industry has consolidated, and that's a good thing. There are still a vast number of manufacturers, but with an overall good average quality level. Prices between the different brands vary somewhat, though but not as much as before. The same holds true for the wide variety of diamond tools.

Full speed ahead after consolidation

The concrete floor grinding and polishing industry is still growing rather fast, but not as explosive as some years ago. In general, the systems are refined, becoming more efficient, and offering a better working environment for the operator. The U.S. is still by far the strongest market, and will in the long term offer better revenues for any company that can get a foothold in this market.

Even though concrete polishing is a European "invention," that market is still to some extent struggling as the method has yet to be accepted in some countries. It is different in Australia, where concrete polishing is very common and growing on a track similar to that in the U.S. Other areas where concrete polishing is growing include East Asia, with China in the lead, and in South America. Still, the best place to get a grip of what is new and trend-setting in the concrete floor grinding and polishing market is World of Concrete in Las Vegas. Here, current and prospective users flocked like bees around a jar of jam. In this feature, we will highlight some of the new machines and tools that were on display.

Lavina X-Series debuts

A manufacturer that we have seen a lot of the last years is



Superabrasive, Inc. The company has been a well-known name in the U.S. for a long time, but is also picking up in the rest of the world and particularly in Europe. At World of Concrete 2015, Superabrasive, Inc., unveiled the Lavina® X floor grinding and polishing machines. The X series includes a full range of models, from 7 in (178mm) and 13-in (330mm) edgers to 32 in (813mm) self-propelled and 38 in (965mm) remote-controlled propane model.











Floor grinding just got easier.

Introducing the Husqvarna PG 820 RC, our first remote-controlled floor grinder! The PG 820 RC 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 parameteres to assure quality for a specific application, enabling consistent operation and results even when changing operators.

The PG 820 RC is one of the most powerful and efficient machines on the market. It is an excellent choice for concrete floor preparation and repair, as well as all polishing and grinding applications. To learn more visit our website, **www.husqvarnacp.com**, or call your Husqvarna representative.



Lavina® machines are well-known as powerful, durable, versatile, and very easy to use, but with efficiency being the top priority. The most notable feature of the new X line is the minimized machine maintenance. All models from the 25 in (635mm) and up feature a new window on the machine base that allows

for quick access to the planetary drive system and easy belt maintenance. Other machine features include improved handle lock technology, and a new water delivery system with metered water flow.

The self-propelled Lavina® 32M-X, the "star" of World of Concrete, features a large 32 in (813mm) work path capacity, a powerful 25 hp (18.6kW)

motor, and almost 1,000 lbs (454kg) of grinding pressure (including weights). A second motor propels the machine forward, requiring very little physical effort from the operator and guaranteeing a steady floor processing speed. The new grinding and polishing machines are complemented by the Lavina® heavy-duty industrial vacuums.



Superabrasive has also added a new 27-inch propane burnisher to the Lavina® line, LB-27.

www.superabrasive.com

World premiere from Scanmaskin

"This is world news," says Scanmaskin President, Claes-Göran Bergstrand. "The new Scancombiflex 800DSP represent something new that the industry has never seen before."

Scanmaskin launched a completely new system at World of Concrete guiding the operator through the job and to an optimal final result. To make life easier for the contractors, Scanmaskin developed the new Scancombiflex 800DSP, a new type of smart floor grinding and polishing machine that the manufacturer considers being a complete innovation for the industry.

Scancombiflex 800DSP is the optimal helper. The machine guides the operator through the whole grinding or polishing process. Thanks to the new integrated computer, the machine gives accurate guidance to the operator through the control panel. Sensors provide the operator with feedback and warnings when the tool wear is too high, or when the tool is worn out. The sensors continuously measure the wear or thickness of the tool. With the manual mode the operator can choose the speed and the tools himself.

"For us Scancombiflex 800DSP is a real revolution to the industry and we had a great interest for it at World of Concrete in Las Vegas," Bergstrand says. "It was a real success."

www.scanmaskin.se

Increased productivity with new Husqvarna PG 820 RC

Husqvarna Construction Products has joined the group of manufacturers with remote controlled floor grinders. At Wor of Concrete, the manufacturer launched the PG 820 RC, which offers very high productivity, powerful performance, and superior ergonomics. Thanks to battery power, it is also easy to transport to and from the work site.

"With this new machine, Husqvarna has taken yet another progressive step within the floor grinder segment, says Joakim Leff-Hallstein, Husqvarna's Global Product Manager for Floor Grinding. "The remote control gives the operator freedom and full maneuverability of the machine. This, in turn, leads to increased productivity."

The increased productivity derives from more machine hours per day, as the operator can correct the hoses and power cord, move the dust collector, inspect the floor and prepare the next set of tools, all while the machine is still running and doing the job. The remote control unit also offers a possibility to optimize the grinding parameters, and to assure quality for the specific application. This control enables consistent operation and results, even when a new operator

With a grinding pressure of more than 639 lbs (290kg), the 32-in (820mm) PG 820 RC also comes with great

takes over.







ergonomic advantages, again thanks to the remote control. The operator is not exposed to the machine's vibrations and sideway forces. Thanks to this, the operator does not feel fatigue. Additionally, the integrated battery power makes the transportation effortless.

Of course, the PG 820 RC comes with all the advantages of the existing, best in class, PG 820. With Dual Drive Technology TM , the PG 820 RC is one of the market's most powerful and efficient machines that can be optimized for each application. It is an excellent choice for concrete floor preparation and repair as well as all polishing and grinding applications, both wet and dry. It is also perfect for HiPERFLOOR® concrete floor polishing system.

www.husqvarna.com

New grinders from Diamatic

By now, the world knows that Dutch manufacturer
Diamatic is part of the Blastrac Group. Blastrac bought
Diamatic many years ago but the products tended to have
a lower profile compared with others offered within the group.
But that has clearly changed and the Diamatic product line is a
fast-growing concept not only in the U.S. and Europe, but also
in other parts of the world.

With the U.S. market showing strong growth, Diamatic introduced the new 17-in (432mm) BMG-435 P gas-powered grinder. With a tooling speed range of 500-900 rpm, the BMG435 P is ideal for removing old coatings or adhesive residues, smoothing









or flattening concrete slabs (including curled expansion joints), or correcting surface imperfections. Diamatic also introduced the new 22-inch (559mm) 555 PRO planetary grinder, which can be easily disassembled for quick relocation to basements and other hard-to-reach areas. The 555 PRO uses 9-in (229mm) diameter tools, and has a tooling speed range of 350-1,100 rpm.

www.diamaticusa.com

HTC AirFlow — a whole new generation of tool holders

Although HTC did not launch any new grinders or polishers at this year's World of Concrete, the company did introduce HTC AirFlow, a new smart tool holder that lowers the heat friction.

The friction created between the surface and diamond tool when grinding concrete, stone, and terrazzo floors leads to heat generation, which affects quality and performance. If temperatures are too high, there is a risk of "glazing" and a reduction in tool performance, resulting in loss of efficiency and higher costs.

HTC's new Airflow™ tool holders create an increased and controlled flow of air below the grinding cover, which results in signifi-

cantly lower operating temperatures and improved dust removal efficiency. Their strong cast aluminum construction quickly directs heat away from the tools, while also enhancing particle removal to create a healthier and safer working environment, and less dust removal after grinding.

HTC also showed an upgraded version of the HTC80 iD dust extractor—the HTC80 iD II. The second generation of the machine has eight enhanced capabilities. The biggest improvement to the HTC 80 iD II is its brand new, innovative "duck bill" valve made of a rubber material. The valve increases the efficiency of dust removal from the cyclones, and protects the Longopac® bag from possible damage by conventional hatches.

Other enhancements include an ergonomic slide function on the filter cleaning and bypass valves, 30 percent more space for dust in the pre-separator, welded filter seams that prevent dust



leakage, and relocated power plugs for simpler operation. The HTC 80 iD II increases the performance of floor grinders by as much as 15 percent compared with conventional dust extractors, according to HTC.

HTC also displayed an upgraded version of its popular T-Rex series. A number of enhancements have been made to the series over the past year, resulting in the launch of T-Rex Super® II. T-Rex® Super II is designed for mixed materials and its high stripping capacity produces fast results and an even surface.

Features a new cutting edge and cutting angle

for longer-lasting sharpness, improved PCD quality, a clear direction arrow to help protect segments, and separate versions for right- and left-rotating discs. www.htc-floorsystems.

More new products

US NewGrind showed a new smart grinder, 14-in (356mm) RHINO RM150 that is designed to separate into two or three pieces for easy fitting into a car trunk. The RM 150 is available in 1.5 hp (1.1kW) and 3 hp (2.2kW) models.

Kutrite showed its new Conqueror 32, a 905-lb (410.5kg), three-headed polisher with a 32-in (813mm) footprint. Other features include front and rear lights for work in dimly lit areas, an adjustable handle, and valves for more precise water control.

Ruwac showed its Red Raider XLT combination vacuum and separator system, that provides 300 ft3/min (8.5m3/min) of suction and 30-lb (13.6kg) bag capacity. A beefier, continuous duty version of the system has a custom-built turbine rated at 100,000 hours. Ruwac USA Sales Executive Eric Potorski explains that the equipment was originally designed for industrial and manufacturing settings.

"More and more grinding companies are working 12-hour shifts," he says. "With the continuous duty version, there's no need to shut down. The next crew can come in and keep working."



THE TRADE
SHOW WHERE
BUSINESS
HAPPENS

"We believe in a recovery in the scenario for the second half of 2015 and M&T is always a milestone of new opportunities."

Eduardo Nunes, BOMAG MARINI

According to exhibitors and visitors alike, M&T EXPO - Machinery and Equipment Trade Show and Congress - is the event for the sector of construction that generates the most business transactions, technology and knowledge. In 2015, M&T EXPO will have over 500 exhibitors, 1000 brands of equipment, 110,000 m² of exhibition area and a visiting public of 54,000 highly empowered and influential decision makers. We are waiting for your presence.

FROM JUNE 9TH TO 13TH 2015 | SÃO PAULO/SP | BRAZIL | LOG IN HERE WWW.MTEXPO.COM.BR













HTC AirFlow — A Whole New Generation of Tool Holders

The friction created between the surface and diamond tool when grinding concrete, stone and terrazzo floors leads to heat generation, which affects quality and performance. If temperatures are too high, there is a risk of so-called glazing and a reduction in tool performance, resulting in loss of efficiency and higher costs.

HTC's new Airflow™ tool holders create an increased and controlled flow of air below the grinding cover, which results in significantly lower operating temperatures and improved dust removal efficiency. Their strong cast aluminum construction quickly directs heat away from the tools, while also enhancing particle removal to create



a healthier and safer working environment, and less dust removal after grinding.

The AirFlow™ tool holder is only compatible with HTC original tools. HTC's 650 RX/HDX, 800 RX/HDX, and 950 RX can all be upgraded with AirFlow. As of April 20, 2015, newly-produced machines with the same model names will also be fitted with AirFlow™ as original equipment.

www.htc-floorsystems.com

New **Version** of HTC's Popular 80 iD Dust **Extractor** Now **Available**

A close partnership between HTC and users of the company's 80 iD dust extractor for flood grinders has resulted in a second generation of the machine with eight enhanced capabilities.

The biggest improvement to the HTC 80 iD II is its brand new, innovative "duck bill" valve made of a rubber material. The valve increases the efficiency of dust removal from the cyclones and protects the Longopac® bag from possible damage by conventional hatches.

Other enhancements include an ergonomic slide function on filter cleaning valve and bypass valve, 30 percent more space for dust in the pre-separator, welded filter seams prevent dust leakage, and relocated power plugs for simpler operation.

The HTC 80 iD II increases the performance of floor grinders by as much as 15 percent compared with conventional dust extractors.

www.htc-floorsystems.com



HTC Updates T-Rex Super Floor Stripping Tool

Launched in 2003, HTC's T-Rex® series was consists of five aggressive tools for the removal of everything from thick epoxy coatings to stubborn adhesive residue. A number of enhancements have been made to the series over the past year, resulting in the launch of T-Rex Super® II.

T-Rex® Super II is designed for mixed materials and its high stripping capacity produces fast results and an even surface.

New features a new cutting edge and cutting angle for longer-lasting sharpness, improved PCD quality, a clear direction arrow to help protect segments, and separate versions for right- and left-rotating discs.



fessional Demolition Americas



STIHL introduces another world's first
— a cut-off machine powered by 36-volt
lithium-ion battery technology. The TSA 230
STIHL Cutquik® cut-off machine starts with
ease and changes the game for the jobsite,

delivering maneuverability and solid cutting performance in a lightweight, compact package that can be used indoors.

The TSA 230's onboard water control helps suppress dust while a toolless wheel

lock prevents wheel rotation when removing the wheel attachment bolt. The TSA 230 provides great value, as it's priced below its gasoline-powered counterpart.

MAXXimize Your Blade Performance

Diamond Products is pleased to announce a new, enhanced Heavy Duty Orange high-speed diamond blades called the H.D. MAXX.

The Heavy Duty Orange MAXX offers the same heavy-duty quality users have grown to trust with an even longer life and faster cutting performance. The blade features heat isolation slots in the segment that keep the blade cool during high speeds, extending the cutting life. The blade core has angled gullets for even more cooling action. These features along with the high quality diamonds create the ultimate blade for life and speed users can rely on.

The H.D. MAXX if offered with all the

bonds of the previous Heavy Duty Orange high speed blade: H7H - reinforced concrete and hard materials; H8H - general purpose cutting; and H10H - asphalt, green concrete, brick, and block. Sizes 10 in (254mm) through 20 in (508mm) diameter are available.

www.diamondproducts.com





New Robust Drill Stand DS 900 from Husqvarna

Husqvarna introduces a new drill stand for big-diameter core drilling. The DS 900 is the perfect match to the DM 650 core drill, part of the PRIME™ product range. The DS 900 design uses the proven and robust WS 400 wall saw column, bringing a flexible system set for demanding applications. With a recommended maximum drill diameter of 35 in (900 mm), it is the evident choice for professionals with high demands.

At 70 lb (32kg), the DS 900 works especially well together with the core drill DM 650. The high power output, low weight, user-friendly setup of the motor together with the high stability and robustness of the stand offers a complete setup and is the perfect choice for heavy-duty applications.

In addition, DS 900 is equipped with the proven WS 400 wall saw column design, which provides high strength and a robust, sturdy drill stand. Husqvarna WS 400 series customers enjoy greater flexibility with this design, as the column is interchangeable between drill stand and wall saw.

Husqvarna also offers the possibility to buy an addition 6 ft (2m) column to serve as a spare or for increased drill depth.

www.husqvarnacp.com





26 to 28 AUGUST 2015

IMIGRANTES EXHIBITION CENTER | SAO PAULO

WWW.CONCRETESHOW.COM.BR

SAVE THE DATE

BE PART IN THE LEADING EVENT FOR THE CONSTRUCTION INDUSTRY IN LATIN AMERICA



+ 55 11 4878 5990

concrete@concreteshow.com.br

facebook.com/ConcreteShow

BOOK YOUR STAND NOW Technology and solutions for fleet management and maintenance of construction machinery

- Parts, components and after-sales services
- Drive systems, hydraulic and pneumatic systems
- Electrical systems: alternating current and direct current
- Ground engaging tools and wear parts
- Rendering of maintenance services

- Tires and undercarriages
- Lubricants, filters and products /oil analysis labs / control systems
- Qualification, training and certification of labor
- · Operation simulators
- Equipment management software
- · Import and export

ORGANISER



STAND OUT FROM YOUR COMPETITORS



Expand your business to the Latin America construction market



Do business with more than 30,000 decision makers



Find the right partners for your business

Eiche Forges A Breakthrough

Despite being in the diamond tooling business since 1981. Klaus Eiche GmbH has kept a low profile all these years. There was a good reason for that: private-label manufacturing that accounted for the lion's share of the company's revenue. But if you have a real know-how in your possession, sooner or later you would want the world to know about it. Recently, **Andrei Bushmarin** visited Eiche's stateof-the-art plant in Denzlingen, Germany. Manufacturing diamond tools is a technology-intensive process, which requires in-depth knowledge of industrial diamonds' behavior. That said, knowledge is a prerequisite, but not sufficient by itself. Usually, it takes months of error and trial just to become a run-of-the-mill manufacturer with a competitive product. However, if you really want to be ahead of the pack, you need a breakthrough technology that would take years for others to copy.

The originator

A born innovator, Klaus Eiche learned the secrets of the trade while working for another German manufacturer of diamond consumables as a production manager. Passionate about technology and, particularly, about the conception of a fully automated manufacturing facility, he wanted to see his ideas implemented. In 1981, Eiche quit his employment and established Klaus Eiche GmbH. Invention and innovation were always at the core of his philosophy. Almost every machine at the original factory in Denzlingen was developed by Klaus Eiche himself. Klaus Eiche GmbH was also among the first few that pioneered the production of laser-welded diamond blades in Germany. After two decades of hard work, Klaus Eiche GmbH built a reputation of a reliable OEM partner. In the early 2000s, its manufacturing expertise and capabilities attracted the attention of Grenoble, France-based Winoa group. One of the world's leading suppliers of gangsaws for stone cutting, Winoa was now interested in strengthening its position in construction. Having already bought French manufacturer Samedia in the 1990s, the group all but cornered the domestic market. By taking over Klaus Eiche GmbH in 2003, Winoa gained access to Europe's biggest market and to Eiche's vast database of OEM customers while simultaneously acquiring a highly automated and streamlined production plant.





Four years later, Winoa added Belgium-based Carbodiam and Ultradia to the roster of its construction assets. With these four units onboard, the group could effectively target every strata of the diamond consumables market, from private-label customers to retail buyers to professional sawing and drilling contractors.

Ark Capital buys out Winoa's construction assets

Within the group, each manufacturing unit had its specialization. Klaus Eiche GmbH focused on production

From the left to right, Adrian Eglin, Eiche's Product Manager; Nicolas Vermeulen, Managing Director of ARKEDIA Group; and Dr. Uwe Neidhardt, Site Manager and the driving force behind the development of the Eiche Forging Technology.



of laser-welded blades, ranging from 4.5 in (115mm) to 47 in (1,200mm) in diameter, and small-sized grinding wheels. Samedia specialized in making core bits, silver-brazed blades for wet cutting, and big grinding wheels. Belgian Carbodiam targeted professional contractors with up to 98 in (2,500mm) silver-brazed blades, core bits and special products such as calibrating tools for refractory bricks. When the 2008 recession struck, Winoa group was affected as much as anybody else in the industry. It was during that time that Nicolas Vermeulen was appointed as the group's managing director. His task was to navigate the company through the downturn and to mitigate its consequences. Having risen to the challenge successfully, he later became instrumental in preparing the buyout of Winoa's construction assets by Dublin, Ireland-based Ark Capital group in April 2013.

EFT: Eiche Forging Technology

The idea of using the forging process to manufacture diamond tools was originally conceived by Samedia engineers in France back in the early 2000s. However, it was not until Dr. Uwe Neidhardt and his team at Klaus Eiche GmbH took over the project

that the idea really started to take shape.

It took about five years of research and development to adopt the forging process for serial production of diamond tools at Denzlingen plant. Called the EFT or Eiche Forging Technology, the process boasted a number of advantages over the conventional sintering process used by most manufacturers.

Due to the extremely high pressure during forging, the segment bond gets very dense and almost free of pores, particularly in the welding area. This results in higher resistance of the segments to possible rupture, which results in a higher level of operational safety.

When benchmark-tested against the standard sintering process, the EFT showed a 50- to 100-percent increase in lifespan of the tool, and a 20- to 50-percent increase in cutting speed, depending on the type of concrete or asphalt being cut.

Another benefit of the EFT is the possibility to make segments with different geometry, for instance, trapeze-shaped segments. This geometry helps to cut down on hand-arm vibration in the

Jörg Jessen, Eiche's Production Manager.









Segment quality check. No one failed.

handheld cutting mode, significantly reducing operator fatigue. Having protected EFT by the global patent, the German manufacturer is certain that it would take competitors at least ten years to come up with a similar process. Eiche diamond tools made by the EFT are marketed worldwide under the registered brand name of "SHOXX."

Below the Eiche factory in Denzlingen, Germany.





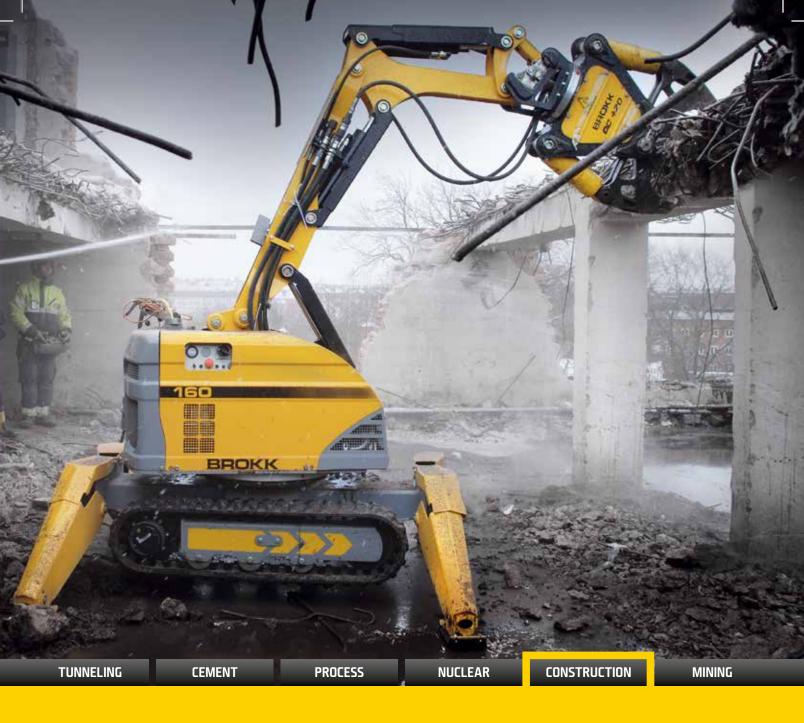
With the daily output of 70,000 segments and 4,000 diamond blades, it only takes about 20 people to control the manufacturing process

Made in Germany

Located in Denzlingen, a quiet German town amidst the scenic "Schwarzwald" forest, Eiche's facility is the epitome of what a modern factory should look like. Sprawled across the area of 37,670 ft2 (3,500m2), the ISO 9001-certified plant is spotlessly clean, environmentally friendly and automated to the max. With the daily output of 70,000 segments and 4,000 diamond blades, it only takes about 20 people to control the manufacturing process.

Apart from the trademark laser-welded forged diamond blades, the factory also produces conventional sintered segments, grinding wheels and core bits. Its total portfolio of diamond consumables at the moment counts as many as 6,000 specifications. With the staff of 53, the company supplies its products to 64 countries around the world, and the list keeps growing. An active member of FEPA (Federation of European Producers of Abrasives), OSA (Association for the Safety of Abrasives), and VDN (German Abrasives Association), Klaus Eiche GmbH aims to stay at the forefront of innovation in the diamond tooling industry.

www.eiche.com



Unbeatable performance

Nobody beats Brokk when it comes to selective demolition on residential, commercial or industrial renovation projects. These remote-controlled electric powerhouses combine impressive hitting power with outstanding reach while the operator works at a safe distance from any falling debris

Brokk machines are light enough to work on weak floors, smart enough to take the stairs (or the elevator) between floors, and so productive that you'll see the difference on your bottom line. On every project.

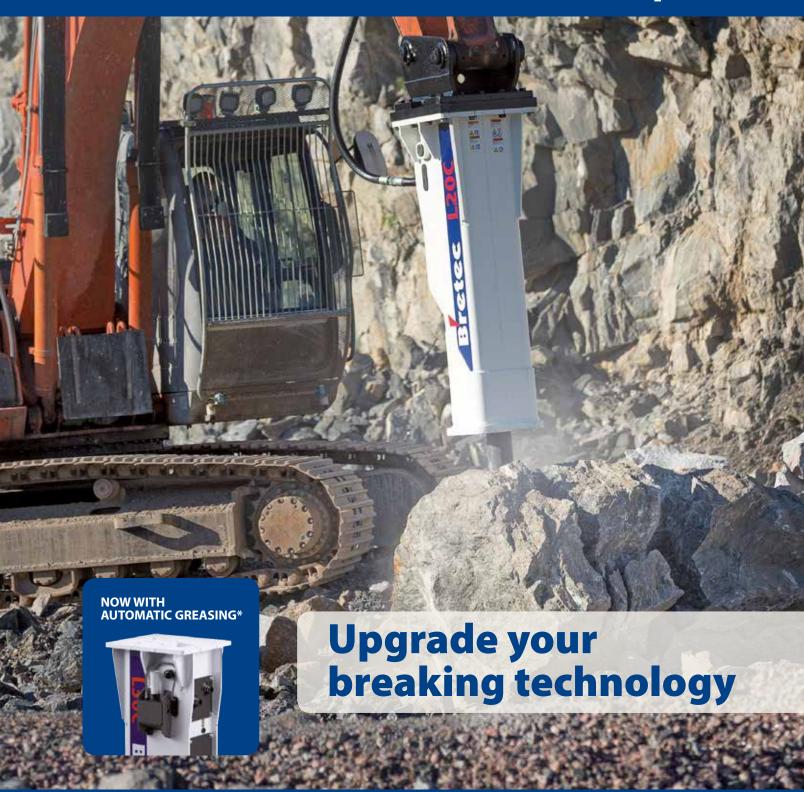
Contact our application experts today and learn how Brokk can help you beat the competition.

Original Demolition Power™





Make an Impact.



*Auto lubrication is available as an option for greater tool protection to all C-series Bretec breakers M17C, L20C and L30C

Sandvik Construction, USA/Canada

Scott Davison 1-404-345-3716

scott.davison@sandvik.com