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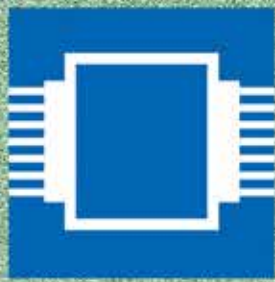
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Great Expectations

Dear Readers!

After the pleasing opening act of the 2014 trade show schedule—World of Concrete, the industry readies for the main event—CONEXPO-CON/AGG.

As we noted in the last issue of PDA, the Las Vegas-centric marathon of construction and demolition trade shows to kick off 2014 would provide some good insights into the state of the market in the Americas and elsewhere. If results of the year's first show, World of Concrete, are any indication, things are looking pretty good out there.

True, World of Concrete's attendance was down 7,000 from last year, to just over 48,000 registered professionals, with a good chunk of 2013's exhibit space in the massive Las Vegas Convention Center going unused this time around.

But though traversing the indoor aisles and outdoor exhibits took less time than in the recent past, there was no mistaking the sense of optimism among both attendees and manufacturers that the U.S. construction and demolition market is finally gaining some sustainable momentum. True, it's nothing like the heady pre-financial market meltdown days of eight to 10 years ago, or even the go-go years of the mid- to late-1990s.

But as several vendors representing diverse products noted, customers are spending money again, which means it's time for contractors to spend some of their own to handle the increased workload.

Which brings us to the tri-annual CONEXPO-CON/AGG, the top reason in most observers' minds for World of Concrete's smaller numbers.

If the pre-show announcements and inducements from vendors are any indication, the enthusiasm evinced in mid-January was no mirage. Economic conditions are improving in most construction- and demolition-related markets. And even in a certain area remains sluggish, which seems to be the case in the highly fragmented nature of 21st Century economics, savvy contractors know that if

they want to expand their reach where business is better, they'd better be ready to compete with the latest, most cost-effective tools available.

True, there are a lot of projects, particularly those in the budget-constrained public-sector, that are being awarded at bargain basement prices. But more and more public agencies are recognizing the negative connotations of the old expression, "you get what you pay for," just as contractors are finding that operating day-to-day on wafer-thin margins is not a viable strategy for survival, let alone long-term success.

It seems certain, then, that this slowly but surely reviving market will continue to produce project opportunities that, in turn, will attract a good deal of competition. But with customers expecting more from their investment, contractors had better be ready to deliver more than just a promise at a price. They need to show that they have the smarts, the skills, and the tools to provide high-quality work. And you don't need an M.B.A. to figure out that's what makes customers happy and interesting wanting you to do more.

So as you roam the expansive maze of CONEXPO-CON/AGG equipment offerings and take advantage of hands-on demonstrations, remember that in today's marketplace, a new product that's operationally efficient; meets safety, ergonomic, and/or emissions standards; is easy to maintain; and promises reliability over the long haul may no longer be something that's "nice to have." It may well be something that a contractor "needs to have" to be a part of the construction and demolition landscape of the mid-20-teens.

See you in Las Vegas!



Event Calendar

US Demolition Association Convention and trade show
22-25 February, 2014
Mirage Hotel, Las Vegas
Las Vegas, Nevada, USA
demolitionassociation.com

CONEXPO-CON/AGG 2014
4-8 March, 2014
Las Vegas Convention Center,
Las Vegas, Nevada, USA
www.conexpoconagg.com

CSDA Convention and Tech Fair
13-15 March, 2014
The Westin La Paloma Resort & Spa
Tucson, Arizona, USA
www.csd.org

SAMOTER 2014
8-11 May, 2014
Verona Exhibition Center
Verona, Italy
www.samoter.com

Concrete Show Mexico
21-23 May, 2014
Centro Banamex
Ciudad de México
Mexico City, Mexico
concreteshowmexico.mx

Concrete Show South America
27-29 August, 2014
Imigrantes Exhibition Center,
São Paulo, Brazil
www.concreteshow.com.br

DEMCON - International Demolition Show
4-5 September, 2014
InfraCity Exhibition Center
Stockholm, Sweden
www.demcon.com

Bauma China
25-28 November, 2014
Shanghai New Exhibition Center
Shanghai, China
www.bauma-china.com

World of Concrete 2015
21-24 January, 2014
Las Vegas Convention Center,
Las Vegas, Nevada, USA
www.worldofconcrete.com

Latin American Demolition Forum 2015
1-2 October, 2015
Sheraton Spa & Resort,
Rio de Janeiro, Brazil

AB Volvo to Sell Volvo Rents in North America

The Volvo Group has announced plans to sell its Volvo Rents business in North America to Platinum Equity, a private equity company, for US\$1.1 billion. Volvo Rents offers rental of a range of machines intended for the construction and engineering industry, including Volvo Construction Equipment (Volvo CE) products. Volvo Rents has operations in the U.S., Canada, and Puerto Rico. Based in California, Platinum Equity has extensive experience with investments in the equipment rental market.

"We looked at different alternatives to grow Volvo Rents' business and concluded that the best alternative is to sell the operation to another owner," says Olof Persson, Volvo Group President and CEO.

All Volvo Rents' 2,100 employees will remain with the company, and Volvo Rents' customers will not be affected by the transaction. Volvo CE will continue to sell products to Volvo Rents under the new ownership, with existing dealer-based rental operations remaining in place. The transaction is subject to certain conditions, including the approval of relevant authorities, and is expected to be closed in the first quarter of 2014.

www.volvoce.com

New CEO at Hilti

The Hilti Group has appointed Christoph Loos as chief executive officer, succeeding Bo Risberg. Loos joined Hilti in 2001 and was appointed to the executive board in 2007, where he was responsible for the finance, human resources, and IT units. Since 2011, he has been responsible for the emerging markets, and the energy and industry units. His predecessor, Bo Risberg, joined Hilti in 1999 and has been a member of the executive board since 2001, taking over as CEO in 2007. Under Hilti Group's internal age regulations, executive board members must leave the company's management when turning 56. Due to the ongoing challenges caused by the financial and currency crises, however, Risberg remained CEO one year longer than originally planned. Corporate governance factors will prevent Risberg from moving to the Hilti Group board of directors, as the board already counts two former Group CEOs among its members.

www.hilti.com



Zoomlion Cifa Brazil is already a reality



Zoomlion Group has opened a production site in Brazil called Zoomlion CIFA Brazil, situated in the city of Indaiatuba, about 56 miles (90 km) from San Paulo. The site is dedicated to the production of concrete machinery, complementing another Zoomlion site dedicated to other lines of machinery for construction.

The 236,800 ft² (22,000 m²) facility has a production capacity of more than 1,200 machines a year, divided between different production lines including truck mixers ranging from 283 ft³ to 353 ft³ (8 m³ to 10 m³) in capacity, dosing and batching plants, concrete pumps, and

stationary booms. All products are built to the highest standards of quality, safety, and reliability, using the latest technology, a highly skilled production team, and expert sales and after-sales support staff.

The headquarters also features a spare parts warehouse, a test area for quality control, and an exhibition area of the machines ready for delivery.

The new facility's production department is directed by Alberto Dumas, who already started production in Cifa Hunan. Sales director is Valdir Dos Santos, and after-sales manager is Anderson Machado.

Europe Production for CP compressors

Chicago Pneumatic has added production capacity for its range of portable diesel compressors at its Antwerp manufacturing facility in Belgium. The new production aims to meet Europe's increasing demand as well as CP's ambition to offer market-leading customer service and delivery times.

The decision to expand production capacity in Europe has resulted in that CP manufactures its entire portable diesel compressor range for the European market by the end of 2013. In addition CP will offer custom-built portable compressor solutions with a wide variety of additional built-in options. Customers will have the opportunity to specify the compressor type they require, and request additional options are built in on the production line.

Controls Opens U.S. Subsidiary to Partner with Local Customers

Controls, a global leader in the manufacture of materials testing equipment for the construction industry, has expanded to North America with the January 2014 opening of its U.S. subsidiary, Controls USA. With a local presence, Controls will be in a better position to partner with local customers, deliver unique expertise, and provide outstanding pre- and post-sale service.

Located in the metropolitan Atlanta, Ga., area, Controls USA will offer a complete line of materials testing products for the soil, asphalt and concrete sectors, for both field and laboratory work.

"The company will focus on what we see as an under-served market segment, and offer automatic, computerized test equipment, which offers superior performance-to-price value, more accurate results, as well as time and cost savings," says Alvaro

Beleña, Vice-President of Controls USA. "We will also back up our products with superior service."

Keeling Joins Brokk Inc

Brokk Inc., of Monroe, Wash., announces the appointment of Jeff Keeling to the position of Regional Sales Manager for the U.S. Mid-Western Region. Jeff takes over from Steve Upchurch, who left Brokk in March. Jeff joins Brokk after successful stints in sales with Magnum, Husqvarna, Precision Demolition Systems, and, most recently, Hilti. He will focus on the upper Midwest and Great Lakes states.

"Jeff brings an incredibly deep knowledge of the concrete cutting industry and a strong familiarity with demolition," says Brokk Sales and Marketing Manager Peter Bigwood. "He is bright, articulate, and a quick learner. Through his work with Precision Demolition, he has experience with Brokk equipment. We welcome his enthusiastic presence on our team."

Brokk, Inc.'s experienced inside team remains in place to help clients with any Brokk related queries. The team consists Mike Martin, Inside Sales Manager; Jonas Pettersson, Technical Support Manager; Lars Lindgren, Brokk, Inc., President. Dave Hall handles all requests for parts.

www.brokkinc.com



Edge Promoted to Engineering Manager at Kolberg-Pioneer, Inc

KPI-JCI and Astec Mobile Screens has promoted Alan Edge to engineering manager of Kolberg-Pioneer, Inc., the company's Yankton, S.D.-based manufacturing facility. In his new position, Edge will be responsible for managing the design engineering and technical publications departments. During his 35-year career at Kolberg-Pioneer, Edge has worked in several sales positions, including product development manager, product manager, and sales engineer. Prior to moving to the sales department, Edge held positions as assistant chief engineer and design engineer within the engineering department.

Edge replaces Greg Stach, who retired January 10 after 17 years of service to the company.

Brokk Adds Parts & Service Assistant

The Brokk, Inc., Parts and Service Department is proud to welcome Matt Murphy to its team as the new parts and service assistant. In addition to coordinating outgoing and in-



coming shipments, Murphy is responsible for maintaining inventory, supporting customers and entering orders.

Prior to joining Brokk, Murphy was a safety specialist and production design developer for an artificial rock manufacturing company. He earned his Bachelor's degree in law and justice from Central Washington University in 2012. He resides in Woodinville, Wash., with his wife Gale and their dog.

Brokk Adds Controller

Brokk, Inc.'s new controller, Mike Pirolo, brings more than 20 years of experience to managing the company's day-to-day financial activities. He also has taken on account reporting and human resources responsibilities.

Prior to joining Brokk, Pirolo was the operations manager in Microsoft's International Department. Before that, he spent more than 10 years as a controller with NCM Group, one of the largest demolition contractors in the United States, so he is no stranger to Brokk equipment.

"Brokk has the right mix of people," Pirolo says. "It is a tight-knit group and I am happy to come on board to contribute. It's



all about the challenges, and I look forward to putting my experience and perseverance toward the unique obstacles to come."

Pirolo earned his Bachelor's degree in business and finance from the University of Washington. He lives in Kirkland, Wash., where he is involved in a variety of sporting activities such as coaching children's baseball, softball, and soccer, and participating in bowling and softball leagues. He also enjoys spending time with his 14-year-old son, Jake, and 12-year-old daughter, Linsy.

Volvo CE to Acquire Terex Hauler Business

Volvo CE has agreed with the Terex Corporation to acquire its hauler manufacturing operation Terex Equipment, including related assets and intellectual property for a purchase price of approximately US\$160 million a cash- and debt-free basis. The acquisition, which is subject to regulatory approval, includes the main production facility in Motherwell, Scotland, and the ranges of rigid and articulated haulers. It also includes the distribution of haulers in the U.S. as well as a 25.2-percent holding in Inner Mongolia North Hauler Joint Stock, which manufactures and sells rigid haulers under the Terex brand in China.

The acquisition includes five models of rigid haulers with payloads ranging from 32t to 91t. The introduction of rigid haulers will extend Volvo CE's position in light mining. The deal also sees three models of articulated haulers added to the Volvo portfolio, with payloads ranging from 25t to 38t. These machines support Volvo CE's already established position in the articulated hauler segment.

If approved, the acquisition will add some 500 employees to Volvo CE's existing workforce. It will also allow for the continued use of the Terex brand name on the relevant machines for a transitional period. The transaction is expected to be finalized during the second quarter of 2014.



JCB Appoints New North American Chief as Patterson Retires

JCB's John Patterson CBE, who rose through the ranks from field service engineer to Group Chief Executive, has retired after 43 years' service. Arjun Mirdha now takes the position of President and CEO of JCB in North America, which Patterson had led for the last five years. Patterson joined JCB in 1971 and went on to work in Canada and America before returning to the U.K. in 1988 as Managing Director of JCB Service. In 1993, he was appointed Managing Director of JCB Sales before becoming Group CEO—only the third person in JCB's history to hold the position. He went on to become the company's second longest serving CEO and in his 10 years in the role, sales broke the £1 billion mark for the first time, eventually reaching more than £2 billion by the time he became Chairman and CEO of JCB, Inc., in 2008. Under Patterson's leadership as Group CEO, JCB opened facilities in Savannah, Ga.; Sao Paulo, Brazil; Pune, India; and Shanghai, China. In 2010 he oversaw a \$40 million investment in a new range of skid steer and compact track loaders that went into production at JCB's North American HQ in Savannah.

"During John's time as Chief Executive, JCB achieved unprecedented sales growth and led the company's transformation into a truly global company," says JCB Chairman Lord Bamford. "I thank John for his contribution over the past 43 years, and am delighted he will remain a Director of



the JCB Group and Chairman of the Board of the JCB USA companies."

"I am proof that there are no boundaries to career development at JCB and I have had an incredible time over the past 43 years, Patterson says. "I am proud to have been part of a team that has seen JCB become the world's third largest construction equipment manufacturer, and achieve market leadership for many of its products.

Patterson noted that while JCB has made excellent progress in North America in recent years, many more opportunities remain. "I wish Arjun Mirdha well as he leads the team as President and CEO of JCB in North America," he added. Arjun Mirdha took up his new role from on January 1, 2014, reporting directly to Graeme Macdonald, JCB Group Chief Executive.

www.jcb.com

Case supports World Cup ski flying

A Case wheeled loader has assisted at one of Europe's major skiing events, the Ski Flying World Cup which took place in January, at the Arena am Kulm, in Bad Mitterndorf, Austria. More than 60 top ski flyers from all over the world met at the traditional ski flying hill in the Steiermark region, to compete in this famous event. To ensure preparation of access roads and parking areas, a 15t Case 721F wheel loader supported the team of six Steyr tractors. The Case dealer from Denmark SDK Kjærsgaard provided the machine.

"We chose the 721F due to its strong performance and ideal shovel-size to support our colleagues from Steyr agriculture in the preparations of the Ski Flying World Cup," said CNH Industrial Construction business director for Germany, Austria and Switzerland Markus Meyer. "In addition, our engagement enhances our growing strength in Austria. At the end of 2013 we opened a new Case store close to Vienna to substantially increase our business in this important market."

The Case wheel loader was well prepared for its demanding tasks in the snow. With its standard shovel capacity of 2.7m³, the 721F is ideally suited to these challenging conditions, and the smooth control

clearly shows its strength during the creation and marking out of large spaces. The new heavy-duty axles and the automatic 100% differential lock at the front axle ensure optimum traction in wintery conditions.

www.casece.com

Robi MM234 to California

Bruce Mellor Incorporated from Escalon, California have bought Robi MM234 screening bucket from Ramtec, Finland. The business of Bruce Mellor Inc. is growing rapidly and they see lots of applications where Robi buckets can be used. Compost screening is the first job what Robi MM will do. Robi MM234 is a new model of popular Robi Multimaster range. Chad S. Cheatham from Interval Equipment is very excited to see how the first Robi bucket performs. Co-operation between Ramtec and Interval Equipment will be unveiled in Conexpo.



Lighting Up the World Cup



When one of the world's most exciting sporting events makes its return to Brazil this summer, Stemac, a major generator assembler based in Porto Alegre, will be there to power the event, using Volvo Penta-equipped gensets.

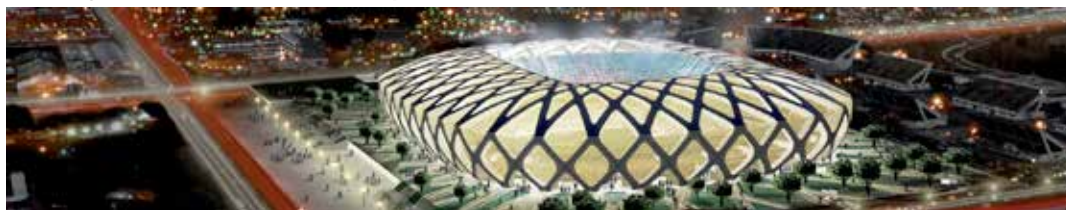
If the 2014 World Cup is anything like the 2010 South Africa event, which saw nearly 3.18 million fans attend 64 matches, Brazil's 12 stadiums will be jam-packed with throngs of spectators cheering on their home nations.

But with all the buzz and excitement over the players, it's easy to overlook the one



Beira Rio Stadium in Porto Alegre city will be powered by two Stemac gensets installed with Volvo Penta TAD1642GE engines.

A Stemac genset, similar to the ones that will power the stadiums in Manaus and Beira Rio.



During the 2014 World Cup in Brazil, Manaus Stadium in Manaus city will be powered by four Stemac gensets installed with Volvo Penta TWD1643GE engines.

thing that keeps the games going and the lights ablaze: electricity.

With more than 62 years of experience in Brazil, it comes as no surprise that Stemac is the company World Cup officials have entrusted with powering several stadiums that will be used in the 2014 games. The company produces around 7,000 gensets per year, earning a reputation for delivering high-quality, durable products supported by an extensive service network with 38 branches strategically located around the country. Over the years, Stemac

has sold more than 60,000 generators across Brazil and many more throughout Latin America and Africa.

"We are very proud of this opportunity; it speaks to our reputation in Brazil and reinforces our tradition of supplying gensets to important customers," says Diems Ollermann, engineering consultant at Stemac, which has powered several of Brazil's stadiums in the past. "We understand that we were chosen for this project in part because of our ability to get the equipment sooner than our competitors could have."

Volvo Penta-powered Stemac gensets will have the opportunity to prove exactly what they can do on the world stage of this year's World Cup. Two stadiums—Beira Rio

in Porto Alegre, (host to five matches) and Manaus in Manaus city (host to four matches)—will use a combined six Stemac gensets powered by Volvo Penta TAD1642GE and TAD1643GE engines. The gensets, which will produce around 700 kVA of energy each, have already been delivered.

"The high profile of these gensets at the World Cup demonstrates the trust that Stemac has in our brand and heralds a growing partnership for our two companies," says Ron Huibers, president of Volvo Penta of the Americas. "We're looking forward to joining Stemac in powering such an important, prestigious global event, as well as our continued growth together as we power the everyday business of Brazil."

CECE appoints new president

Caterpillar France general manager Eric Lepine has been appointed president of the Committee for European Construction Equipment for the coming two years effective from 1 January 2014. Lepine took over from Johann Sailer, who has been chairing CECE for the last two years. The handover took place in Paris in December on the occasion of the last CECE Steering Group meeting of the year.

During his 26 years in the industry, Lepine has held various positions at Caterpillar in different countries, such as Belgium, Hungary, Poland, Russia, USA and UK before taking over the responsibility in Grenoble. Lepine's main goal for his presidency will be to ensure the implementation of the 10 points listed in the CECE-CEMA Industry Manifesto, which was presented during the 2013 CECE summit in Brussels to the members of the European Parliament and the European Commission.

Lepine believes that CECE should focus on three main priorities during his presidency: Achieving a harmonisation of road safety requirements for non-road mobile

machinery within Europe; ensuring that industry's needs are taken into account within the current revision of the exhaust emission legislation and finally the association should work for the final approval of the market surveillance legislation review, currently stuck at the European Council level. He would continue and step up dialogue with decision makers in Brussels at all levels. "We will keep on promoting the idea of fair competition and free trade for all market players in Europe," said Lepine. "What we have to avoid is non-needed complexity in laws and regulations."

His deputy chairmen for the next two years are Ammann executive vice president Christian Stryffeler and CNH Industrial business director Giampiero Biglia. Lepine is spokesman for 1,200 mainly medium sized European construction equipment manufacturers from 14 countries. They are members of CECE through their national associations. The European construction equipment industry achieves a turnover of EUR25bn and employs 130,000 people.

www.cece.com



Eric Lepine (left) took over the presidency from Johann Sailer (right)

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FLOOR PERFECTION

LAVINA® Tools



Just introduced at WOC 2014: LAVINA® 32M-S, a new self-propelled model, and LAVINA® 38GR-S, the first remote-controlled propane model from LAVINA® by Superabrasive. Visit www.superabrasive.com for more details.

Housing Predictions:

How 2014 Will be Different

BY JED KOLKO, CHIEF ECONOMIST, TRULIA

Jed Kolko, Chief Economist at Trulia, the US online residential real estate site, is in this column sharing some of his predictions for the 2014 US residential real estate market.

The housing market continued its uneven recovery in 2013, and will enter 2014 closer to normal than it was a year earlier. In Trulia's latest survey, 74 percent of Americans said that homeownership was part of achieving their personal "American Dream"—the highest level since January 2010. Even among young adults (18-34 year olds), many of whom struggled through the recession and are still living with their parents, 73 percent said homeownership was part of achieving their personal American Dream, up from 65 percent in August 2011. Rising prices over the past two years have been great news for homeowners, especially for those who had been underwater, and the real estate industry has benefited from both higher prices and more sales volume.

At the same time, the effects of the recession and housing bust still sting: the barriers to homeownership remain high, and a few markets, mostly in Florida, still have a foreclosure overhang. Plus, the housing recovery itself brings its own challenges, including declining affordability and localized bubble worries, especially in southern California.

5 ways different

Barring any economic crises, the housing market should continue to normalize. Here are 5 ways that the 2014 housing market will be different from 2013:

HOUSING AFFORDABILITY WORSENS. Buying a home will be more expensive in 2014 than in 2013. Although home-price increases should slow from this year's unsustainably fast pace (see below), prices will still rise faster than both incomes and rents. Also, mortgage rates will be higher in 2014 than in 2013, thanks both to the strengthening economy (rates tend to rise in recoveries) and to Fed tapering, whenever it comes.

The rising cost of homeownership will add insult to injury in America's least affordable markets. In October 2013, for instance, 25 percent or less of the homes listed

for sale in San Francisco, Orange County, Los Angeles, and New York were affordable to middle class households. Nonetheless, buying will remain cheaper than renting. As of September 2013, buying was 35% cheaper than renting nationally, and buying beat renting in all of the 100 largest metros. However, prices and mortgage rates might rise enough to tip the math in favor of renting in a couple of housing markets, starting with San Jose.

THE HOME-BUYING PROCESS GETS LESS FRENZIED. Home buyers in 2014 might kick themselves for not buying in 2013 or 2012, when mortgage rates and prices were lower, but they'll take some comfort in the fact that the process won't be as frenzied. There will be more inventory on the market next year, partly due to new construction, but primarily because higher prices will encourage more homeowners to sell, including those who are no longer underwater.

Also, buyers looking for a home for themselves will face less competition from investors who are scaling back their home purchases. Finally, mortgages should be easier to get because higher rates have slashed refinancing activity and pushed some banks to ramp up their purchase lending. Moreover, the new mortgage rules coming into effect in 2014 will give banks better clarity about the legal and financial risks they face with different types of mortgages, hopefully making them more willing to lend. All in all, more inventory, less competition from investors, and more mortgage credit should all make the buying process less frenzied than in 2013—for those who can afford to buy.

REPEAT BUYERS TAKE CENTER STAGE. 2013 was the year of the investor, but 2014 will be the year of the repeat home buyer. Investors buy less as prices rise—higher prices mean that the return on investment falls, and there's less room for future price appreciation. Who will fill the gap? Not first-time buyers; saving for a down payment and having a stable job remain significant burdens, and declining affordability is also a big hurdle for first-timers. Who's left? Repeat buyers; they're less discouraged by rising prices than either investors or first-time buyers because the home they already own has also risen in value. Also, the down payment is less of a challenge for repeat buyers if they have equity in their current home.

HOW MUCH PRICES SLOW MATTERS LESS THAN WHY AND WHERE. Prices won't rise as much in 2014 as in 2013. The latest Trulia Price Monitor showed us that asking home prices rose year-over-year 12.1 percent nationally and more than 20 percent in 10 of the 100 largest metros. But it also revealed that these price gains are already slowing sharply in the hottest metros. How much prices slow matters less than why. If prices are slowing for the right reasons, great: growing inventory, fading investor activity, and rising mortgage rates are all natural price-slowing changes to expect at this stage of the recovery.

Prices could slow for unhealthy reasons, too. If we have another government shutdown or more debt-ceiling brinkmanship, a drop in consumer confidence could

hurt housing demand and home prices. Where prices change matters, too. Slowing prices are welcome news in overvalued or unaffordable markets, but markets where prices are significantly undervalued and borrowers are still underwater would be better off with a year or two of unsustainably fast price gains.

RENTAL ACTION SWINGS BACK TOWARD URBAN APARTMENTS. Throughout the recession and recovery, investors bought homes and rented them out, sometimes to people who lost another (or the same!) home to foreclosure. In fact, the number of rented single-family homes leapt by 32 percent during this period.

A Cooler Single Family Rental Market

Going into 2014, though, investors are buying fewer single-family homes. Loosening credit standards might allow more single-family renters to become owners again. And fewer owners are losing homes to foreclosures to begin with.

All of this means that the single-family rental market should cool. At the same time, multifamily accounts for an unusually high share of new construction, which means more urban apartment rentals should come onto the market in 2014. Urban apartments will be the first stop for many of the young adults who find jobs and move out of their parents' homes.

In short, 2014 should mean more supply and demand for urban apartment rentals, but slowing supply and demand for single-family rentals. Ironically, economic recovery means that the overall homeownership rate will probably decline, as some young adults form their own households as renters. Still, the shift in rental activity from suburban single-family to urban apartments would be yet another sign of housing recovery.

What other reasons will cause 2014 be different? New local markets will take the spotlight. Our top 10 markets to watch are entering 2014 with strong fundamentals, including recent job growth and longer-term economic success, as well as recent construction activity typical of vibrant markets. They are, in alphabetical order:

- Bethesda-Rockville-Frederick, Md.
- Charlotte, N.C. - S.C.
- Denver, Colo.
- Fort Worth, Texas
- Nashville, Tenn.
- Oklahoma City, Okla.
- Raleigh, N.C.
- Salt Lake City, Utah.
- Seattle, Wash.
- Tulsa, Okla.

Why are so many of the high-profile markets of 2013 missing from our list? We ruled out markets that were more than a little overvalued according to our latest Bubble Watch, which eliminated most metropolitan areas in Texas and coastal California. We also struck markets with a large foreclosure inventory (courtesy of RealtyTrac), like most of Florida. Our 10 markets to watch, therefore, should have strong activity in 2014 with few headwinds.

Jed Kolko is Chief Economist at Trulia online residential real estate site. Jed leads Trulia's housing research and provides insight on market trends and public policy to major media outlets including TIME magazine, CNN, and numerous others. Jed's background includes a Ph.D. in Economics from Harvard University, and more than 15 years of publications and research management in economic development, land use and housing policy, and consumer technology adoption.

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Robert Selna is a regular contributor to PDA magazine and works today as an attorney and consultant in the San Francisco Bay area, USA. His background since the early 1990s consists of being a reporter and staff writer at the newspapers San Francisco Examiner, San Francisco Daily Journal and San Francisco Chronicle. He has also worked as a Chief Legislative Aide at the San Francisco Board of Supervisors. He is educated at Golden Gate University and U.C. Berkeley.

PDA's Robert Selna has taken a look at the development on the U.S. construction industry and reports in this interesting article that U.S. construction spending will continue to edge upward in 2014, driven primarily by multifamily housing starts.

US Con

U.S. construction spending will continue to edge upward in 2014, driven primarily by multifamily housing starts, according to a broad range of national construction forecasters. Residential building gains will be moderated by small increases or no growth in other sectors such as office and retail development, which are more heavily dependent on jobs and consumer spending, experts say. Each has lagged since the official end of the Great Recession in 2009. Lodging could see an uptick, as could logistics. Infrastructure and industrial construction is expected to increase slightly, but will likely be hampered by gridlock in Washington over federal spending and debt.

"Housing construction dropped to a 50-year low during the recession while the U.S. experienced a growth in population and since then has had increased employment, so there has been pent-up housing demand, but it won't last forever," said Ken Simonson the chief economist for the Associated General Contractors of America.

Simonson predicted that residential construction spending in 2014 would increase by approximately 10 % over 2013. Other pundits have placed that number slightly higher.

Simonson said he believed that condominiums and rental apartments would be built in greater numbers than single family homes for the foreseeable future, due to long-range demographic trends that have gained momentum for several years and are only partly related to the lagging U.S. economic recovery. Specifically, Simonson noted the following factors:

- **Children:** In previous generations, people in their 20s bought single family homes because they were having children. Twenty-somethings are now waiting longer to have children, and therefore delaying or foregoing home purchases.
- **Debt:** Since the housing bubble burst, banks have tightened credit standards; meanwhile young people have more student debt than ever before and are less credit-worthy.
- **Change of preference:** Fewer U.S. residents are interested in living in suburbs where single family homes previously could be purchased at affordable prices. Increasingly, buyers want to commute fewer miles and be closer to the city center, including the convenience of public transit and walkable commercial areas.

FMI, which provides of management consulting and investment banking to the engineering and construction industry shares Simonson's view of multifamily housing construction. In its 2013 Fourth Quarter Reports, FMI predicts that multifamily will see a 29% growth in 2014, but notes that the number could easily be impacted by other factors.

"If interest rates begin to increase appreciably, residential construction could drop accordingly, to FMI's report cautioned. "On the other hand, if employment improves as the economy continues to grow, more of the rising middle class will be willing to get back into home ownership."

As of February 2014, year-over-year fixed rate 30-year mortgage interest rates had increased from approximately 3.8% to 4.1%, but the rates have not risen as quickly as anticipated and have decreased on occasion as a result of monthly national employment reports, according to HSH.com, which tracks residential mortgage rates.

Office

Both FMI and Jones Lang LaSalle (JLL), a national commercial real estate and investment firm, report that office construction will stay in a "recovery" mode rather than expand. Builders constructed a large amount of new office space during the boom economy, which was followed high unemployment rates. That combination led to vacancies, which have just begun to shrink in the past two year, but not to the extent that inspires developers – even in strong markets.

FMI's data shows that office construction increased by only 1% in 2103 and is expected to grow by no more than 3% in 2014.

"As employment grows, there is a slow swing in favor of the owners, as those seeking office space have less leverage for prime space. However, even as the economy improves, hiring for office personnel will be slow, in part due to the efficiencies of technology," FMI reports.

Retail

Like office construction, retail building is expected to be tepid with the exception of a few areas of the country, prognosticators say. Retail development occurs where there is a demand for consumer goods and prior to the recession, supply and demand was aligned, according to Jones Lang LaSalle's Construction Outlook. But, the recession created an imbalance in which retail inventory exceeded demand. Since the recession, retail growth has tracked population growth as opposed to consumer spending patterns. As a result, retail expansion is expected to occur, if at all, in area of the U.S. where the housing bust was the most severe and where housing is now the cheapest – and attracting buyers again. Those areas are Las Vegas, Phoenix and Florida, according to JLL.

Lodging

Following steep declines during the recession, lodging construction expanded by 18% in 2013, and is expected to increase another 10% in 2014, according to FMI. Growth is expected in large metropolitan areas with established tourist industries, such as New York, San Francisco and Chicago. Smith Travel Research reports that 70% of all hotels under construction are "upper midscale" or "upscale" areas.

Industrial

Following the recession, companies that move retail goods and other products have increasingly focused on maximizing transportation efficiencies. For many, that means modernizing distribution and logistics facilities, including modern warehouses and consolidation space for supply chain optimization. JLL reports that logistics development activity began to increase in 2012 and that speculative development occurred in 2013 as rents increased. In Q3 2013, 96.7 million square feet of industrial space was under construction, nearly half of which was speculative.

According to JLL, the West (San Diego to Seattle) has the



Construction

Set to Take Off in 2014

highest rate of speculative construction at 66 percent, followed by the Central U.S. (Phoenix to Pittsburg) at 47 percent and the East (Miami to Boston) with 36 percent.

Kevin Bohm, is the quality control manager on a \$500,000 project that will replace the circa-1940 Oakland Army Base (California) with new warehouses and logistics facilities. The new facilities will accelerate the movement of goods and products in and out of Oakland. Bohm says that the project would not have happened without a strong demand from shippers.

"This project is happening due to the great potential to move a higher volume of goods more efficiently and that's partly because the development parcel is situated on San Francisco Bay near the Pacific Ocean and is very accessible to rail lines," Bohm said. "People and companies want things to move faster all the time."

Infrastructure and Government Spending

The Oakland Army Base project, known as the Oakland Global Trade and Logistics Facility, would not have been possible without state and federal funding, to the tune of about \$260 million. But, that level of public money is not expected to be available in 2014.

California's economy has greatly improved during the past two years and the Democrat-dominated statehouse and Governor are currently debating about how to invest the new surplus. It is likely that some percentage of funds will go toward transportation corridors and other infrastructure improvements. In contrast, the federal government does not show any real signs of breaking through the historic deadlock, which has proven deeply harmful to the U.S. economy. Steven Rattner is a longtime Wall Street executive who served as lead auto adviser in the Obama administration and now writes columns for the New York Times. Rattner recently opined that the single biggest impediment to a stronger U.S. recovery is dysfunction in Washington. During its period of historic intransigence, Congress has not only failed to legislate, it also has stopped investing in U.S. infrastructure. Rattner reported that cuts to federal domestic programs resulted in a decline in spending on critically needed infrastructure from 0.22 percent of gross domestic product in 2010 to 0.14 percent in 2012.

Ken Simonson the chief economist for the Associated General Contractors of America, predicts that government spending will be down 3 percent in 2014. Simonson also says that inaction by Congress on important tax renewals will further reduce federal support for infrastructure spending -- which tends to spur private development. An example, said Simonson, is the United States Highway Trust Fund which directs gas tax receipts to highway improvements and maintenance. Simonson noted that the Congressional Budget Office (CBO) projected in January 2012 that the Trust Fund's Highway Account will become insolvent during 2013, in part due to improved fuel efficiency, but also as a result of Congressional gridlock. CBO's insolvency projection assumed that Congress will not increase transportation spending beyond inflation-adjusted 2012 levels.

"The stimulus funding ended in 2011 and since then Congress has generally clamped down on federal spending," Simonson said. "That is not expected to change in 2014."

While lodging construction is fueled mostly by a wealthy segment of the population, which is less impacted the slow U.S. recovery, most sectors of the construction market move in concert with one another and with the broader economic climate. Housing, retail and office construction cannot be sustained if they outpace job growth and consumer demand. And, the consensus is that job growth and demand will only see modest increases in 2014.



Ohstrom Takes Charge at HTC, Inc.

It's a long way geographically and culturally between a small mining town in Sweden's northernmost reaches, and the university city of Knoxville in the lush hills of eastern Tennessee. But in both respects, there's a lot to see and learn along the way. And it's that kind of experience and perspective that Per Ohstrom brings as the new President of HTC's North American operations.

Appointed to the position in early January, Ohstrom has more than 20 years of experience in manufacturing and industrial sales and services, having held marketing and business development positions with companies such as Xylem, a pump and pumping system manufacturer; RSC Equipment Rental; CHEP, an international company dealing in pallet and container pooling services; and Hagemeyer, a business-to-business distribution company.

"The Customer Types are the Same"

That's quite a diverse background, and Ohstrom is the first to observe that while there may appear to be few obvious ties to the floor grinding and polishing market, "the customer types are the same—people in industrial settings who want the most value from the equipment they buy."

And few markets offer more promise than concrete floor grinding in the U.S., if Ohstrom's "debut" at the World of Concrete show in January is any indication.

"We were nearly overwhelmed with visitors from the time the doors opened," he says. "There's no doubt that concrete grinding is an application that is growing. And being a pioneer that helped develop it, HTC is well-placed to capitalize on that demand and bring its knowledge to more customers."

Continue to be the Innovator

HTC CEO Lars Landin agrees that Ohstrom is just the



Per Ohstrom, new President at HTC, Inc since early January.

person to oversee cultivation of these opportunities.

"Per has the industrial background and domain competence needed to further develop our position as the leader of floor systems," he says. "HTC will continue to be the innovator in floor grinding technology, products and systems."

In his new role, Ohstrom will be responsible for HTC, Inc.'s operations in North and Central America, and the Caribbean, which are based at the company's 35,000 ft² (3,251 m²) assembly, service, and shipping facility in Knoxville. He'll also focus on developing HTC, Inc.'s Twister™ line of chemical-free diamond floor-cleaning pads for the region's janitorial market.

Another focus will be evaluating HTC's distribution structure. Currently, the company's products are sold both direct and via 11 distributors across the U.S. Four members of HTC's eight-person sales team are based in Knoxville.

More Focus on the Rental Market

A key area that interests Ohstrom is bringing HTC products to the burgeoning rental market—an area well-suited for the company's Greyline™ series of floor grinders, dust extractors, diamond tools, and special accessories

"Being simpler in design and operation, the Greyline™ equipment is more user-friendly to operate, and easier to learn how to use," he says. "It's ideal for

people who may need floor grinding equipment on a project-by-project basis. This will be big thrust for the next few years."

Ohstrom prepared for his career by studying economics, industrial marketing, and business law at Luleå University of Technology. He then came to Chicago to pursue an M.B.A. at Northwestern University's Kellogg School of Management.

"It was about as cold there in the winter as where I grew up, so I felt right at home," Ohstrom quips. "I think now, I'm ready for a more moderate climate like Tennessee."



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STATE OF THE

Concrete Floor Grind

Grinding and polishing of concrete floors is progressively becoming a mature industry, but its potential has so far only scratched the surface. It is mainly in the US and parts of Europe and Australia where the method has had a serious impact so far.

But the method's distribution becomes increasingly evident in other parts of the world as the foremost major manufacturers in the area are expanding market shares with increased sales, subsidiaries and independent distributors. This has led to new users, plus new manufacturers of equipment and diamond tools.

The first wave of interest came a few years ago, when many Asian manufacturers started producing cheaper machinery and equipment—often copies of already existing products. The quality was variable, and the availability of service and spare parts was often limited or unavailable. As always, the industry discovered this fairly quickly and the number of new entrants leveled off.

Currently, there is no shortage of manufacturers of machines for grinding and polishing concrete floors. There are a large number of manufacturers, but the quality varies. The same applies for the tools. But the number of distinct methods for grinding concrete to super finish in up to 10 steps is limited. Only a handful of companies offer and market their practices on a global level.

Increasing popularity

The process of grinding and polishing concrete floors into a finished end product is most widespread in the U.S., especially with the construction of new concrete floors. It is also common that the new concrete floor is stained or marbled differently, causing the concrete to resemble a stone floor. Concrete floors need polishing for up to ten stages, but the finished surface is easy to maintain and clean without harmful chemicals. Most appealing to owners, the floor has a life of up to 15 to 20 years.



If polished concrete floors are incorporated in new projects the amount and distribution of aggregates in the concrete can be assessed. There is also the option to choose what type of aggregate to use to create the most aesthetic concrete as possible.

While the U.S. has the largest market, Australia and parts of Europe are nevertheless quite substantial. As the process was first developed by HTC Sweden, it makes sense that grinding and leveling of existing concrete floors is common in the country. But going further with polishing the concrete floor to super finish is still not widespread, although it is on the increase. The countries of continental Europe, and especially Germany polish concrete floors to a greater extent and the potential for growth here is great.

In markets in Asia, South America, the Middle East and parts of Africa grinding/polish is also increasing in popularity. Treatment of concrete floors requires the right equipment and tools, it requires an efficient method of polishing concrete, and facilities for demonstrations and

training is crucial. In markets with low purchasing power it may be more difficult to sell the concept or the need to create different types of financing before it is accepted.

Great potential in China and Brazil

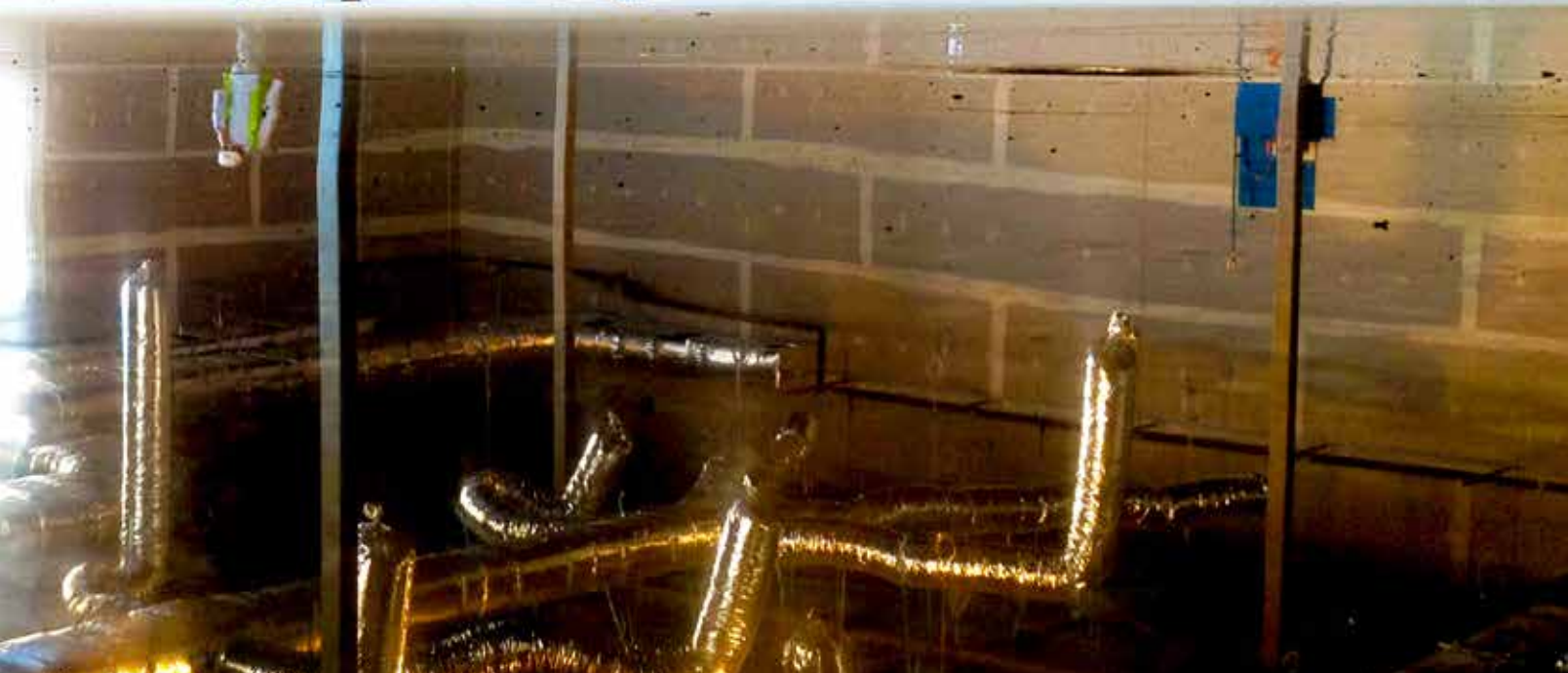
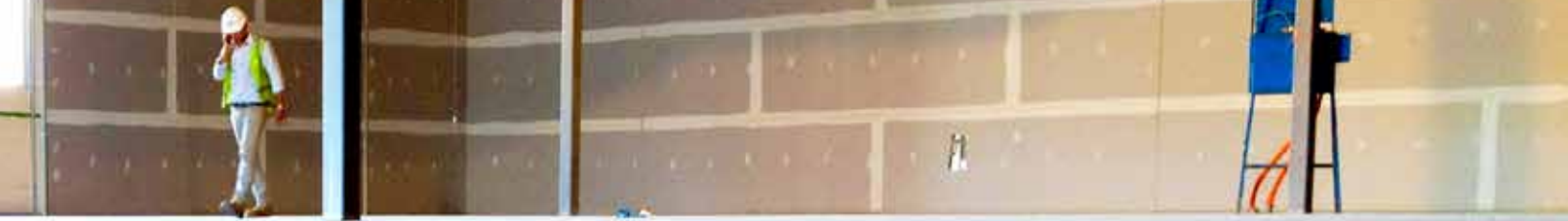
Examples of new markets where the grinding and polishing of concrete floors starting to get a stronger foothold are China and Brazil. Both countries are undergoing a significant transformation, with a plethora of new projects scheduled.

For Brazil, of course, an important engine is the fact that the country's economy has strengthened in recent years, but the upcoming football World Cup in 2014 and the Olympics in 2016. Along the Brazilian east coast and around the big cities, there are extensive renovations and new facilities underway. In China, this change has already been underway for the last decade.

Both countries are accepting for floor grinding and polishing because the method is much more environme-

THE MARKET:

Grinding and Polishing



ally friendly than other types of flooring treatments. In particular, China's government supports practices that lower the negative impact on the environment. China is seeking to reduce the use of stone and terrazzo floors. Increase of polished concrete flooring also reduces the use of epoxy floors.

In China, there are currently a number of manufacturers of machines for grinding and polishing. In Brazil, it is hard to decide who dominates the market as international manufacturer are becoming common. There is only one Brazilian manufacturer of floor grinding machines—LVS in the city of Curitiba. According to the manufacturer their machines have been used for grinding and polishing 16 million ft² (1.5 million m²) in Brazil and they have about 50 percent of the market.

Training and demonstrations

The lack of training and demonstrations is holding back the development of concrete floor grinding and polishing.

In northern Europe, where the method was born, demolition and concrete cutting contractors started to use concrete floor grinding machines on their projects to remove adhesive residue and other types of floor coverings. Contractors found it easy to offer these services.

The trend has now spread to all of Europe. Industry associations in concrete cutting and demolition have started to organize training and certification for their members. In recent years, the U.S. Concrete Sawing and Drilling Association invested in training and certification courses for its members. The same goes for Australia.

But when it comes to the choice of polished concrete floors during the construction of new buildings, it is more specialized flooring companies that embrace the method.

Recent changes

There have been some recent changes in the industry. HTC Sweden was acquired by Polaris Private Equity, a leading Danish and Swedish venture capital firm focusing on

investments in medium-sized companies based in Sweden and Denmark. The former owner and founding family Thysell is no longer active in the company. HTC is still the market leader and has a strong presence, particularly in Europe and the U.S.

Another strong player, especially on the U.S. market, is Superabrasive with the product line Lavina. Superabrasive is based in the Atlanta, Ga., area, but the company has also begun looking toward Europe with a manufacturing plant in Krün, Bulgaria, and a recently opened sales office in Ukraine.

Also, Husqvarna Construction Products (HCP) is focusing on Hiperfloor, its own system for polishing concrete floors in China. One of HCP's partners in China believes there is enormous potential in the country for grinding and polishing concrete floors.

In addition, Scanmaskin has set up its own U.S. subsidiary and distribution agreement with JonDon, a specialist in equipment for treatment of floors.

HTC Makes It Easier to Choose the Right Tool for Grinding Concrete

HTC's series of metal-bond diamond tools for grinding concrete have undergone a thorough update. Four new series of tools—S, M, H, and X—covering all types of concrete grades, now makes the choice of tool easier for floor grinders.

The new tool series are named indicate the type of concrete for which they are best suited from soft to the hardest concrete. S = Soft; M = Medium, H = Hard, and X = eXtremely hard). They replace HTC's existing C, CA, SF, and CX series.

The diamond segments have been given a uniform design within each series and a new, thoroughly tested, composition increases stripping during grinding by up to 30 percent and service life by 40 percent, compared with the previous line. This results in better economy for the floor grinder.

The capabilities of the tool series overlap, making the choice of tool easier and simplifying the process for obtaining the desired grinding result. All lines will be available for delivery by Spring 2014.

www.htc-floorsystems.com

SMHX



Superabrasive's New Solutions



At WOC 2014 Superabrasive Inc. unveiled the latest additions to their LAVINA® S line: a self-propelled LAVINA® 32M-S, a remote-controlled propane LAVINA® 38GR-S, and the first LAVINA® Burnishers.

LAVINA® 38GR-S is the first remote-controlled propane LAVINA® model. It is a 38-inch forced belt driven planetary grinder/polisher, featuring three 13.5-inch heads, a heavy duty 31 HP propane engine, and up to 770lbs grinding pressure. LAVINA® 38GR-S is operated by a wireless, easy grip remote control, and works hands free up to 300 feet away from the remote. The gyroscopic technology allows the machine to maintain a straight grinding/polishing path by ignoring uneven floors and disturbances of up to 30 degrees.

In addition, the new LAVINA® 32M-S model offers self-propelled movement - a second motor propels the machine forward, requiring very little physical effort of the operator. The machine features for-

ced belt-driven planetary movement, 32-inch work path, six 9-inch heads, a powerful 20 HP /15.4 kW motor and almost 800 lbs grinding pressure with weights. At WOC, Superabrasive also showcased the first LAVINA® Burnishers, including a 36-inch propane model, LB36G-S, and a 21-inch electric model, LB21. LAVINA® Burnishers provide high productivity, easy operation, flexible head design and optimal pad pressure, superior dust collection and durable design.

www.superabrasive.us

Aggressive Tools at Aggressive Prices



HTC's new Greyline Superprep diamond tools are aggressive in many ways. Developed with matrix technology HTC has created aggressive tools at aggressive prices.

The new series have three different tools with the GL Superprep 0 is available in separate versions for hard and soft concrete. The two coarsest steps in the GL Superprep series contain a mix of

crushed PCD and diamonds to give a high cut rate. The tools are good for various floor preparation tasks, including removal of coatings, asbestos, glue or any other residue. The biggest surprise might be the list price for the tools.

www.htc-floorsystems.com



Retail stores on the hunt for a superior floor finish, are regularly turning to Pro Grind Australia to deliver a hard-wearing, stain-resistant, and aesthetically pleasing mechanically polished concrete finish. High foot traffic, floor staining, pallet maneuvering, and refitting of stores can reduce the life of a traditional floor cover-

ings, such as vinyl or epoxy. This results in high maintenance costs for retail owners.

Pro Grind Australia is at the forefront of both product and productivity solutions for large retailers with the capacity to deliver more than 53,800 ft² (50,000 m²) nationally, offering retailers consistent finishes with guarantees for enduring



Klindex Debuts Superconcrete HS

Klindex introduces its new concrete polishing system, Superconcrete HS. According to Klindex, Superconcrete HS is the quickest and easiest way to transform any trowelled concrete surface into one that is aesthetically pleasing, durable, and stain-resistant. Indeed, the surface looks like a mirror and strong like iron. The solution is the technology of the new King Conc diamond impregnated floor pads for glossy concrete floor polishing.

Superconcrete HS allows the floor to "breathe" in order to prevent spalling. There are many benefits as well, including increased floor strength; dust control; improved resistance to scratches, stains, and water; low maintenance; and extremely long-lasting when compared to original methods like resin floors.

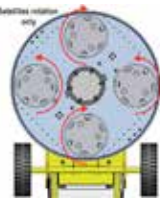
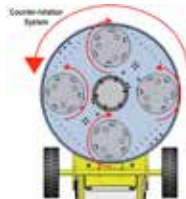
Superconcrete HS is extremely economical for commercial and industrial areas. Free of volatile organic compounds (VOCs), the product is an environmentally friendly choice for today's flooring needs.

www.klindex.it



(800 mm), the Hercules can run with four 9.5 in (240 mm) tools that range in speed from 450 to 1,300 revolutions per minute. The machine also has a gearbox with thermo-hardened steel gears, and an auto-leveling planetary system.

www.klindex.it



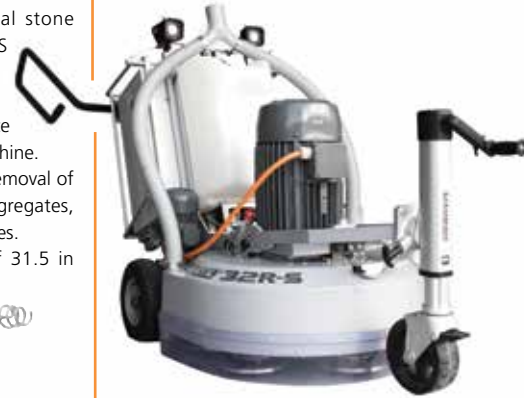
First Grinding Machine with DCS System

Klindex of Italy has introduced the Hercules DCS System, which has the features of two separate machines. Using the Hercules in counter-rotating mode it is a grinding and polishing machine for concrete, marble, and natural stone floors. With the machine in DCS System mode the increased speed of the satellites turns the Hercules into a high-performance industrial floor preparation machine. This makes it suitable for fast removal of resins and glues, exposing aggregates, and leveling very uneven surfaces.

With a working width of 31.5 in



Recent Machines from Superabrasive's



Worth repeating is also that Superabrasive has during 2013 added three models to its Lavina series, each featuring new technology.

The Lavina 32R-S-E is the first remotely controlled grinder/polisher to feature gyroscopic technology. This allows the machine to maintain a straight grinding/polishing path by ignoring uneven floors and disturbances of up to 30°. The Lavina 32R-S-E is operated by a wireless, easy-grip remote control, and works hands-free up to 300 ft (100m) from the remote. A system of continuous checks between the machine and the remote, in addition to several safety features, ensures the 32R-S-E is always on its correct path and operating as intended.

In addition, the new Lavina 25M-S-E offers self-propelled movement, also new to the Lavina product line. A second motor propels the machine forward, requiring little effort from the operator. This model is also available in a 15.4 hp (11.5 kW) version, the Lavina 25LM-S-E.

Superabrasive has also introduced the Lavina 13-S-E edger, with several new features designed to blend edge work and eliminate unsightly lines. New features include a gauge allows the operator to control the angle of the head up to 4° in each direction, a for checking the flatness of the floor, and a new forward/reverse option. The 13 in (335mm) edger is offered in two models—the 13-S-E with a 3 hp (2.2kW) motor, and the 13N-S-E with a 5.4 hp (4kW) motor.

Other new products include the new Lavina vacuum line, new QuickChange metal tools with rectangular segments, and ShinePro, Superabrasive's new line of diamond impregnated pads for floor maintenance.

superabrasive.com

For a Super Polish



floor performance. Retailers have been quick to acknowledge the benefits of an extremely hard wearing, resilient, aesthetically complimentary, and low life-cycle cost flooring solution.

"One of the hazards of being in our industry is staining on the floor, and this can badly affect a store's look and feel,

as well as increasing the time and money spent on trying to keep the floor clean," says a representative from Dan Murphy, a leading Australian wine dealer. "We knew that polished concrete was the solution, and Pro Grind provided us with the added reassurance of the quality and consistency of their product for our

brand, which was the reason we chose them as preferred supplier. We regularly receive feedback from customers about our floors, with one or two a month asking head office who does our floors. That has to be the ultimate positive feedback for a retailer."

www.progrind.com.au

General Equipment's CTS12 Has the Answer

General Equipment Company's CTS12 Rip-R-Stripper for floor covering removal projects offers a fresh solution for removing ceramic tile, hardwood floor, and other tough floor coverings.

The CTS12 acts as a tool carrier for electric powered breakers with ratings of 30-45 ft/lb (40.7-61 Nm) of force. This includes popular models of Hilti, Bosch, Makita, and Hitachi breakers. The CTS12 provides a direct-impulse force, which supplies the power needed to break through the high bond strengths of current mastics, glues and thin set materials.

The CTS12's configuration allows users to operate electric-powered breakers in an upright position, increasing productivity while reducing strain on operators' knees and lower backs. The accessory tool angle can be adjusted to nine different self-locking positions, allowing operators to find the best performing approach to each application. The Anti-Vibe handle is adjustable to enhance operator comfort, and is rubber-insulated to reduce vibration. It also folds for storage and transportation purposes. Breakers mount quickly to the CTS12's steel frame, and the unit operates from a standard 115VAC, 15A power source.

General Equipment offers a wide range of accessory tools to work with the CTS12, including chisels and scraper blades for handling a variety of floor covering removal applications. Other equipment in the Rip-R-Stripper line includes General Equipment's FCS5, FCS10, and FCS16 models for removing carpet, ceramic tile, linoleum and mastics.

www.generalequip.com



Schwamborn's New DSM 800S

The Schwamborn DSM 800S floor grinder, now with greater power, is efficient, reliable, and powerful. Maximum grinding performance demands the best possible technology and a new motor designed to IE 2 standards saves energy and increases efficiency. The power transmission was optimized to increase the grinding performance, ensuring time savings and professional grinding results when removing coatings with special PCD-diamond tools under



heavy working conditions.

In addition the new Diaflex-soft diamond carrier marks a major step forward in the efficient grinding and polishing of uneven floors.

www.schwamborn.com

General Equipment Company's New SG7 Surface Grinder Ideal for Wide Variety of Surface Preparation Jobs

The new SG7 surface grinder from General Equipment Company is designed to accommodate a wide variety of surface preparation applications with unmatched productivity and versatility.

From professional contractors to do-it-yourselfers, the SG7 is ideal for removing paint, thin set, adhesives, mastics, and other floor coatings. Furthermore, matched with General's Pro Polish™ system, the SG7 becomes a low-cost, yet highly productive solution for smaller concrete polishing applications.

In addition to its versatility, what makes the SG7 unique is its frame design. The machine is ergonomically designed to allow the operator to work in a fully upright position, greatly reducing the potential for lower back pain and other occupational-related health issues. Also, the operator's handle provides for vertical height adjustment and can be utilized from either side of the machine, further enhancing ease of use and operator comfort. Its small footprint and low, 55 lb (25 kg) machine weight make the SG7 easy to lift and transport, fitting in almost any type or size of vehicle.

Power is provided by a high-speed



polisher capable of operating under higher amperage loads while utilizing a wide variety of available 7 in (178 mm) diameter diamond segment discs. Dual gas shocks dampen grinding forces and help to produce level surfaces. The SG7 comes standard with a cool-to-the-touch LED working light, which increases productivity in low light areas. Other standard features include full-swivel, non-marking caster wheels and a combination 1-3/8 in (35 mm) and 2-inch (51 mm) diameter vacuum connection port for applications that require dust control.

In addition to the SG7, General offers a full line of single- and dual-head surface grinders available with electric, gasoline or propane power sources. Multiple attachments can be used to accommodate many surface preparation or concrete polishing applications.

New Drill Rig from Kern-Deudiam

In July 2013, Kern-Deudiam bought the XXL drill rig product line from Longdia GmbH, Celle, Germany. The top priority was to ensure all Longdia customers would be able to buy the needed spare parts, get a repair at KERN-DEUDIAM workshop, or even buy a new drill rig. But Kern-Deudiam's in-house research and development department also went right into looking for ways to improve the KDS-XXL drill rig series. The result is a new guide roll system and fine feed (gearbox



1:3.5), which are now available. With the fast and safe quick change clamping system, and the lightweight construction, the KDX-XXL is a versatile drill rig for professionals. Weighing only 48.5 lb (22 kg), it offers a diagonal adjustment from 0° to 55°, and a drilling range up to 13.8 in (350 mm). An optional distance plate expands its reach to 15.8 in (400 mm).

www.kern-deudiam.de

Scanmaskin Launches Scan Combiflex 800 Propane Grinder

Scanmaskin has extended their grinder program with the new propane driven Scan Combiflex 800 Propane. The introduction took place at World of Concrete 2014.

The launch of the Scan Combiflex 800 Propane grinder took place at the World of Concrete 2014 in Las Vegas. The newest model in the Scan Combiflex line is a robust and stable machine, designed to be operated 100 percent from its 20 lb (9 kg) propane tank, with no need for external electrical power. The SC 800 Propane is great for outdoor applications with limited power options.

Stable, sturdy, ergonomic and powerful

At 970 lb (440 kg), and with a 25 hp (18.5kW) motor, the SC 800 Propane is a powerful and



efficient machine, engineered for any application out there. It uses three 9.5 in (240 mm) disks to grind a width of 32 in (800 mm). The ergonomic design allows the machine to grind and polish at higher speeds, while at the same time minimizing side torque and stress on the operator. The ergonomic design also reduces vibrations for the operator, and enables the machine to produce consistent results with minimal effort.

Combiflex grinders since 2003

Scanmaskin is a manufacturer of floor grinding, surface preparation, and polishing equipment and has a wide range of grinding and polishing machines, and diamond tooling for removal work, grinding and polishing. The company's first Scan Combiflex grinder was launched in 2003, and quickly became a bestseller. Since then, the Scanmaskin grinder line has rapidly expanded to include a total of 12 models, with numerous variants and options available.

All of the Combiflex machines are produced in Scanmaskin's headquarters facility in Gothenburg, Sweden. The company is now in the process of setting up distribution in South America, along with further development and expansion in North America. Scanmaskin's U.S. Manager, Josh Headings notes that the company, "is very pleased with the growth in the U.S. over the past year, and looking forward to future growth in 2014."



Scanmaskin also offers their own line of diamond tooling with superior performance and reliability in virtually any type of application that exists. The diamond tools are also extremely easy to use with the quick-change slot system. The different diamond tooling options provide solutions for everything from removing tough overlays and epoxy to grinding and polishing high-gloss concrete and natural stone floors. The versatile line of tooling is also interchangeable with each model of grinder.



Scanmaskin manufactures, making it easy and cost-effective to change tooling from one Scan Combiflex grinder to another.

www.scanmaskin.com



Robotic A

The use of remote controlled demolition robots has increased considerably since the first robot was built by Brokk in the 1970s. The number of manufacturers are not that many but has increased but a few new has appeared during the last decade.

Avant Tecno unveiled its first new demolition robot, Avant Robot 185, at Bauma 2013. In February, the company also unveiled a new high frequency breaker called Avant B230 designed for the Avant robot.

There are a few manufacturers of remotely controlled demolition robots. However, competition is tough and getting tougher every year and there has recently been several new product launches by the main Nordic players. Mikael Karlsson reports.

New Brokk machines

Brokk has launched the new Brokk 60, the smallest remotely controlled demolition robot in the Brokk range and also in the world. With about 25 percent more power than its predecessor (the Brokk 50), a new control system, and an even more robust construction, the Brokk 60 combines greater capacity and speed for outsized performance in the most challenging of confined spaces. The increase in power is due to a new 22 liter/min flow hydraulic system, while a fundamental redesign of the slewing system, machine body, electrical and control systems, and other elements makes this a powerful next-generation model of the smallest machine in the Brokk range. The new control system gives operators increased reliability, smoother machine movements and continuous indications of temperature and pressure.

Despite the increased power and performance, the Brokk 60 still only weighs 500 kg, and is 70 mm lower than the Brokk 50. The exterior has been upgraded with sturdy steel covers and a covered slewing table. New LED lighting provides brighter illumination to the work surface.

The Brokk 60 has the same mounting plate as the Brokk 50, and can operate the same range of attachments, including breakers, crushers, buckets, and grapples. The Brokk 60 is mainly intended for the construction industry, but it is also ideal for other applications where space is scarce, such as jobs in small infrastructure and mining tunnels, and in the nuclear and process industries.

Brokk has also launched the diesel-dri-

ven model 400D, which is aimed primarily at meeting the ever increasing demands of the process and tunneling and mining industries, where electrical supply is limited or non-existing. The Brokk 400D has a reach of almost 7 m, and is heavier than its predecessor, but its footprint is only slightly bigger than Brokk 330D. This is enabled by a new larger undercarriage, new outriggers, and other more robust design choices. The Brokk 400D boasts faster maneuvering and positioning. Its tracking speed is increased by 60 percent over the Brokk 330D, which makes it the fastest Brokk model and fit for applications where movement over longer distances is required. The Brokk 400D is designed for heavier attachments like the SB 552 breaker and other popular attachments currently available only to owners of the electric-powered Brokk 400. The CC700 crusher, drills, grapples, scabblers, and beam manipulators are just some of the other attachments available. In addition to the visible exterior changes, the Brokk 400D also comes with a number of important intrinsic improvements. The new control system allows operators to control the machine with quick, precise movements for accurate demolition and other intricate tasks.

www.brokkinc.com

Two new Husqvarna robots

Husqvarna launched its first remotely controlled demolition robot in 2009. This year the company has launched two new machines, the DXR 270 and DXR 300.

"With this latest product launch, Husqvarna can now offer a complete series of remote demolition robots," says Husqvarna Construction global product manager Lars Gustafsson.

The DXR 270 has been developed with a clear user focus. The new outriggers with extra span not only provide increased stability, but also allow for



Additions

a greater workload. The fixed arm has a stable design that delivers precise positioning of the tool and requires only a minimum of service. With a reach of 4.8 m, it is highly competitive in its segment. The low weight of 1.75 t and 780mm wide chassis gives the DXR 270 a very compact design. Its low height additionally gives operators a free view over the machine while working, making operations more efficient, safer and help give it a low centre of gravity. "With its compact design and low weight, it is easy to transport as it fits through all normal doorways, and can be transported in most lifts," said Gustafsson.

Like all Husqvarna DXR demolition robots, the DXR 270 is remote controlled with a 89 mm color display and Bluetooth technology. The control system is adapted to handle demolition environments characterized by high vibrations, concrete dust, and water. The DXR 270 is applicable for most work related to concrete demolition and smaller excavation work, both indoors and out.

Husqvarna's DXR 300 is equipped with the new outriggers that are 160 mm wider to provide increased stability and the ability to carry more than 400 kg of workload. Nevertheless, the DXR 300 weighs just under 2 t, making it the lightest remote controlled demolition robot in its segment. The DXR 300 is equipped with a fixed arm that delivers



The red demolition robots from German TopTec has been manufactured since many years back. The brand has arather strong foothold within the process industry.



a precise positioning of the tool and requires only a minimum of service. With a full reach of 5.2 m, it is ideal for demolition of concrete and brick constructions.

As the DXR 300 is only 780 mm wide, it will fit through most doorways and construction lifts, making it suitable for diverse applications within the construction area. The remote control with a color display and Bluetooth technology is made to facilitate one-handed operations and to make the daily work easier for the user. The control system also provides an element of safety as operators can stand at a comfortable distance from the machine while working.

www.husqvarnacp.com

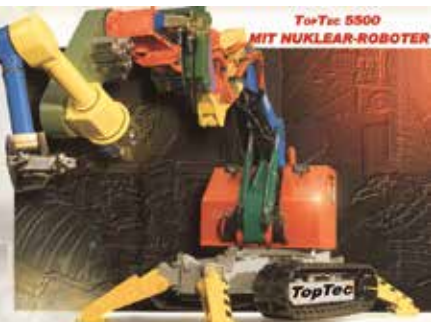
Avant Tecno moving on

A year after unveiling its first demolition robot, the Avant Robot 185, Finland's Avant Tecno has debuted a new high-frequency breaker, the Avant B230. The breaker is designed to be a perfect fit for the Avant robot providing the

The new diesel driven Brokk 400D, which is aimed primarily at meeting the ever increasing demands of the process, tunnelling and mining industries, where electrical supply is limited or non-existing.



Brokk 60, today the smallest remotely controlled demolition robot in the Brokk range and also in the world.



best productivity in its class. Besides the massive input power of 19.8 kW, the hammer runs with an extremely high frequency, reaching up to 2600 blows/min. In addition, the Avant Robot 185 can be fitted with several other demolition attachments, such as cutter-crushers, grapples, pulverizers, shears, and drills. The electrically driven Avant Robot 185 can be powered either by a 35A, 18.5kW or a 32A, 15kW electric motor, allowing flexibility and power when or where it is needed. Equipped with telescopic boom, the



maximum vertical reach is 5.5 m, while horizontal reach is 4.5 m. Excluding attachments, Avant Robot 185 weighs 2 t. The construction sector has been a rapidly growing customer segment for Avant Tecno, and the addition of a demolition robot has proven to be a good fit to the product portfolio. In addition, Avant has modified and expanded its demolition offering to compact multi-purpose loaders as well.

"We have received a lot of good feedback from the existing Avant customers," says Avant vice president marketing and sales Jani Käkälä, "but we have managed to penetrate into completely new customer sub-segments as well."

www.avanttecno.com

Something special from Top Tec Spezialmaschinen

Top Tec Spezialmaschinen, based in Munich, Germany, has a long tradition of developing demolition machines, particularly for the process industry. Top Tec's products have a strong foothold within the European process industry, and the company intends to strengthen its brand within



the construction industry. This includes remotely controlled refractory de-bricking robots for industrial use in scheduled repairs or unexpected shut downs of kilns, ladles or ovens.

Top Tec has developed its own remotely controlled electric de-bricking robots—the TT 1850 E, TT 2500E—while the larger TT 4500, TT 5500, TT 6500, and TT 7500 models are available in either diesel or electric versions. The robots are designed for extremely hard and difficult jobs in all kinds of industries, especially cement plants. Many different tools are available, enabling tailor-made solutions. All units are also available as stationary machines, and are perfect for nuclear waste handling jobs. Using remote controls, the operator stands at a safe distance from falling debris, stones and waste material.

www.toptec-germany.de

Finnish demolition contractors, Paupek visiting Avant Tecno's factory. Starting from left: Avant sales manager Jorma Jarkko, Avant president Risto Käkälä, Paupek president Pekka Piirala, Paupek area manager Ilpo Koskinen and Avant vice president Jani Käkälä.



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New Attachments: "Shear" Force and "Crusher" Power

This year work tool manufacturers for the demolition attachment industry have delivered a plethora of new shears, crushers and pulverizers that are stronger, more productive and cost efficient than their predecessors. PDA's Andrei Bushmarin reports.

The demolition attachment market is growing, albeit at a much slower pace than the players would wish. The annual amount of demolition projects oscillates around the same figures, but the number of suppliers is steadily increasing competition in the sector. In terms of consumption, North America holds on to its leading position, closely followed by Central Europe and Scandinavia. Among emerging economies, South America and Africa posted the highest growth rates. Eastern Europe, which is currently underperforming, is expected to resume growth in the short-to-mid term. As the southern European market is virtually non-existent, Italian and Spanish manufacturers are hanging on by their fingernails, with their chances of survival depending solely on international sales.

Clients harder to satisfy

There have not been any groundbreaking innovations, but the general trend is that attachments are getting increasingly larger and more efficient, while generating less noise and dust. According to Genesis Attachments marketing manager Amy Burmeister, high performance, ease of maintenance, and noise and dust suppression systems are the key requirements that professional contractors require. The sales and marketing director of Finnish company Ramtec, Benjami Pitkasalo, added that users are becoming increasingly harder to satisfy, requiring more features on their tools while trying to drive the price down. Young demolition companies tend to go for cheaper Korean or Chinese products, or rent their attachments. With most respondents believing that the global demolition market is slowly gaining momentum, the outlook for late 2013 and early 2014 is cautiously positive.

Genesis extends range of GXT mobile shears

Genesis Attachments has added four new models to its existing GXT line of mobile shears, thus extending it to eight. The new GXT 445 and GXT 775 straight and rotator models join the GXT 555 and GXT 665

shears launched in April 2013. Shorter in length and height and lighter in weight, the GXT shears have their center of gravity closer to the excavator, enabling the rotating models to be mounted on 20 t to 35 t excavators that previously could only carry less powerful shears. The GXT range has the cutting apex moved closer to the back of the jaws, which improves material gathering and increases cutting performance while reducing maintenance. More GXT models are already in the pipeline, and the complete range will fit 10 t to 110 t carriers.

www.genesisattachments.com

Ramtec Upgrades Robi crusher-grapple

Ramtec has upgraded the Robi crusher grapple CG35R with a high-speed valve. Weighing in at 2.6 t, this model is designed to fit 20 t to 40 t excavators. The most important feature of the CG35R is its ability to separate material after crushing. According to the company, the combination of the wide jaws and crushing force al-



lows users to perform demolition tasks with the CG35R much faster and efficiently than with a conventional cutter crusher.

www.ramtec.fi

Demarec to adjust tools to market requirements

Demarec, a specialist manufacturer from the Netherlands, is going to overhaul its range of pulverizers,



demolition shears and Multi-Quick processors with a view to adapting them to higher working pressure. The maximum pressure will be raised from 350 bar to 380 bar, which will result in a 10-percent increase in capacity.

The overhaul has been prompted by the increasing number of excavators that have hydraulic systems operating at a pressure of 380 bar. Demapower system tools and those with standard cylinders will undergo the upgrade. In line with the trend towards larger attachments,

Demarec has delivered its first 9 t scrap shear, and



is currently working on another two models, weighing 13 t and 16 t. These will be available with and without the 360° rotation mechanism. Also new are two grab models, the DRG 25 and 27. They are currently only available in the Benelux market, but export versions will follow shortly. The DRG-25, weighing 1.45 t is intended for 18 t to 28 t machines. The larger DRG-27 fits 20 t to 30 t carriers. These grabs are equipped with a parallel linkage system, new oil distributor, and two heavy-duty rotation motors.

www.demarec.com

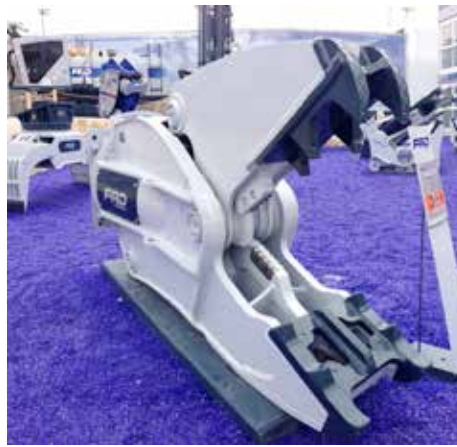
Caterpillar releases new multi-processor line

Cat Work Tools has released the new MP300 multi-



processor line for excavators. The MP318 and MP324 models can handle virtually any demolition job by using the same housing and a choice of six jaw sets. Depending on the task at hand, the operator can change between concrete cutter, demolition, pulverizer, shears, universal, and tank shears. The new multi-processors come complete with a 360° rotation mechanism.

Due to a new jaw locking system, jaw changeover takes only about 10 minutes instead of usual 25 minutes. Cutting and crushing performance has been improved, thanks to a built-in hydraulic SpeedBooster, which automatically kicks in whenever the tool meets any resistance. With the redesigned booster, a speed valve and new smaller cylinder, jaw closing force has been increased by 6 percent, and the open and close cycle times have been almost halved. These innovations have boosted the new multi-processors' steel cutting performance by 10 percent, and concrete breaking



by 50 percent. According to Cat, more models will be added to the multi-processor range in the future.

www.cat.com

FRD unveils new crusher line

Furukawa Rock Drill has its V series of heavy-duty crushers, covering a wide range of demolition and recycling applications. The new tools feature the reverse-mounted hydraulic cylinder, equipped with a speed valve as standard. The series includes VX primary crusher, VS secondary crusher, VR scrap shears, VM multipurpose crusher, and V multiple-use crusher with exchangeable jaw sets. All models are complete with steel blades for cutting reinforcement. The V-system is available in nine sizes, fitting 3.5 t to 70 t excavators. The double-cylinder construction ensures a very wide jaw opening for its weight class. Thanks to the possibility to choose between six different jaw sets, the V-system is capable of solving almost any demolition or material-handling task.

www.frd.eu

Atlas Copco introduces mobile shear jaws

Atlas Copco has turned its CC 3300 Combi Cutter into mobile shears. Designed for cutting steel structures such as profiles, beams, frames and rebars, these new jaws will be handy on demolition and recycling sites as well as scrap yards. The CC 3300 features two moveable jaws and two lifting cylinders. One of its most distinctive features is the central pin, which holds both cutter jaws together. This solution reduces the time needed to change the jaws by up to 75 percent, compared to the concept of separately supported jaws. Thanks to the coupling and positioning system, which holds both jaws



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www.trevibenne.it



demolition | recycling | earthmoving

together, the jaws can be installed and removed as one unit. The cutter blades are reversible and exchangeable, which also saves time on-site. The mobile shear jaws version is the latest addition to the universal jaw version, steel-cutting jaws, and box shape jaws, which are already available for the CC 3300.

www.atlascopco.com

Wimmer expands Topcut range

Austria-based Wimmer has been developing and improving the Topcut line of demolition shears for about 15 years now. The universal Topcut U, designed for a wide range of applications, was the first in the line, joined later by another four jaw versions. Today, "Topcut" shears are available in four weight classes, fitting excavators up to the 75 t class. Just recently, Wimmer has added another model, the 700U, to the Topcut range. The new shears come complete with two cylinders and a speed valve for high-performance demolition. A number of features guarantee long and reliable operation in harsh demolition environments, including special covers protecting the cylinder surfaces, and oil lines routed inside the cylinders to prevent them from damage by debris. The shears are designed in a way that ensures that no



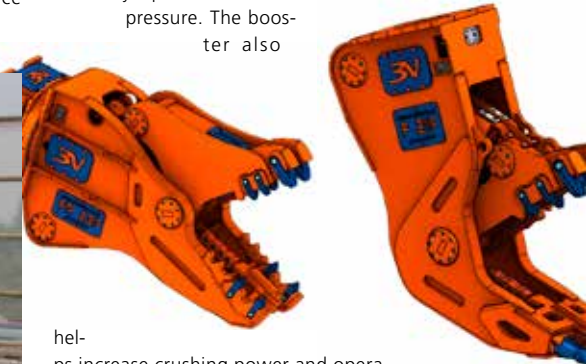
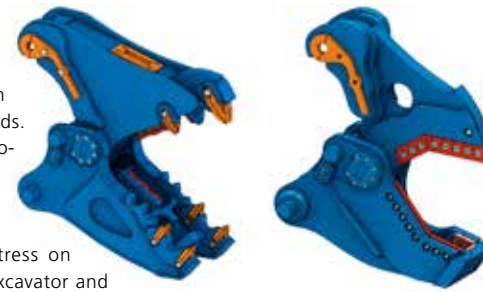
Compact crusher from Mantovanibenne

Italian company Mantovanibenne has expanded its attachment range with the CRH440 crusher. Weighing 290 kg, this compact, powerful tool is designed for 3 t to 6 t carriers. Thanks to its weight and dimensions, the CRH440 is a good option for jobs in confined areas. Jaw closing force

is controlled by a booster system, which automatically increases the power when it



bar within seconds. This solution reduces stress on the excavator and lowers fuel consumption, as most of the time the machine routinely operates at a lower pressure. The booster also



helps increase crushing power and operating speed, which results in the reduction of the open-close cycle to just 3.5 seconds. The premium line includes the HC Premium primary demolition crusher, the MK Premium multi-kit processor, the FR Premium rotating pulverizer, and the F Premium secondary demolition pulverizer.

www.trevibenne.it

meets any resistance. The RCO system protects the crusher's hydraulics from pressure surge. Jaw opening and closing cycle is 1.1 to 2.4 seconds, reaching 24 complete cycles each minutes.

The crusher's low weight and compact dimensions serve to increase the excavator's maneuverability onsite. The crusher comes with different types of interchangeable tips for the operator to choose from, depending on the job conditions.

www.mantovanibenne.com

Trevi Benne equips premium line with impact booster

Another Italian company Trevi Benne, has debuted a new premium line of demolition attachments equipped with a power-multiplying device called impact booster—an integrated hydraulic unit that sharply increases the excavator's operating pressure when



screws or bolts are exposed to the breaking forces. The jaw design has been optimized so that users could easily change and replace its parts right on the site.

www.wimmer.info

Lehnhoff to launch 15-model grab line

Germany-based Lehnhoff has introduced a 15-model range of sorting grabs, fitting 1 t to 100 t carrier machines. The new grabs feature innovative cylinder technology, which reduces the force transmitted onto the housing by 50 percent, enabling more compact and lightweight construction. Two hydraulic motors built into the housing provide 360° rotation. The range is primarily geared towards heavy-duty applications, with all models boasting robust and sturdy construction. Parts subject to regular wear and tear (e.g., the cutting edge) are made of 500 HB steel and are readily changeable. The grabs are available with either the Lehnhoff patented quick-coupling system or with a mounting bracket for other types of quick couplers.

www.lehnhoff.de



it is no longer enough to crack the material being demolished.

Thanks to the impact booster, operating pressure can be raised from the pre-set 250 bar to a peak of 750

MB extends product range

Meccanica Breganzese, one of the world's trendsetters in screening and crushing buckets, has expanded its product portfolio with the launch of two new models. Designed for 4 t to 8 t carriers, the MB-S10 screening



bucket and MB-C50 crusher bucket belong in the smaller end of their respective ranges. With a weight of 445 kg and capacity of 0.6 m³, the MB-S10 is built along the same lines as other MB screening buckets. Compact and maneuverable, it can even be used for gardening work. The MB-C50 is the smallest unit in the MB crusher range. Weighing 750 kg, it has a loading volume of 0.25 m³, and features the patented double-jaw movement technology.

www.mbcruiser.com

Rockster rocking the Conexpo

Rockster will attend the Conexpo-Show in Las Vegas from March 4-8, 2014 at booth number 8464 in the Platinum Lot and inform about the latest developments like the R1100DE, the first parallel-hybrid impactor worldwide. Moreover Rockster designed an ingenious 3D animation and produced special scratchcards for winning exclusive Rockster equipment.

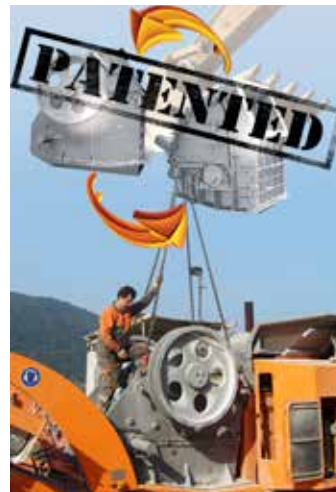
Live presentations

There will be live presentation of two mobile crushing plants, R1100 and R700S. Rockster will present its biggest impact crusher, the Rockster R1100 with screenbox and return



belt which already has proved its power and flexibility on the North American market. This machine enters a new performance-dimension within the compact crushing class. With a robust design, the R1100 only gains 32.6 tons of total weight and impresses with a crushing performance of up to 350 tons per hour. Rockster also shows the most compact impact crusher of its portfolio, the R700S. Through the compact construction and the low weight of 19.9 tons, the plant is easy to transport, very flexible and therefore the perfect solution for applications on lowest space as on inner city jobsites. The hydrostatic drive guarantees an optimal modification of the final grain quality and causes no wear costs.

The optional Rockster screening system with the screen box RS73 and the unique double functional return/stockpile belt RB65 ensures high quality grain in one workflow.



Duplex interchange system

The Rockster R1100 is also available with

the unique patented Duplex system which allows to change the crushing units (from impact crusher to jaw crusher and vice versa) within shortest time and this offers complete new opportunities in the operation with various materials.

3D animation

On two TV sets on the booth, Rockster presents its brandnew 3D animations showing a Rockster impact crusher on various jobsites and with different applications. Even the DUPLEX-system is demonstrated by showing the interchange from impact to jaw crusher in detail. Just for the Conexpo Rockster has designed special scratchcards which give you the chance to win exclusive Rockster incentives. So watch out for our three beautiful „Rockster Girls“ who will walk around handing out the cards and visit the Rockster booth!

Brokk Launches Brokk 60 and 400D at CONEXPO-CON/AGG

Brokk, the manufacturer of remote controlled demolition machines, present two new machines to the North American market—the Brokk 60 and 400D (diesel)—at Booth 8547 the CONEXPO-CON/AGG 2014 in Las Vegas. The launch represents the 11th generation of Brokk machines, and marks the company's 35th year as a leader in demolition machine innovation and manufacturing.

Brokk 60

Brokk redesigned the Brokk 50 to make it faster and more powerful while keeping it compact and easy to maneuver. At a height of just 34.4 in (874 mm)—2.75 in (70 mm) lower than its predecessor—the Brokk 60 is the smallest remote-controlled demolition machine in the world. The unit's small size—only 1,100 lb (499 kg)—makes it ideal for applications where space is limited in industries as diverse as

construction, demolition, metal processing, tunneling, and nuclear. The Brokk 60 also increases productivity with more breaking force, faster movements, and a new control system. Brokk incorporated major improvements to the control system that enhance the unit's reliability, create smoother operation, and allow for continuous, accurate temperature and pressure monitoring. Improvements to the hydraulic system, which increased the unit's flow rate to 5.8 gal/min (22 liter/min), allow the Brokk 60 to perform faster while delivering 25 percent more power.

In addition to its powerful system features, Brokk improved the unit's durability with the addition of a sturdy steel cover and a covered slewing table, both of which protect internal components from debris. Brokk also incorporated long-lasting, efficient LED lights to provide better illumination to the work area.

The Brokk 60 maintains a horizontal reach of 8.2 ft (2.5 m) and a vertical reach of more than 10 ft (3 m). It features the same mounting plate as the Brokk 50 it replaces, so all the same attachments – breakers, crushers, buckets and grapples – are compatible. Like the Brokk 50, the Brokk 60 can be transported in an ordinary passenger elevator, and can even maneuver up and down stairs.

Brokk 400D

Brokk developed the diesel-powered 400D with all the benefits of the older model 330D in a heavier-duty machine. The 400D delivers enhanced durability and faster performance for applications where electricity is difficult to access, such as metal processing and tunneling industries. The 400D delivers a 60-percent increase in transport speed over the 330D. The unit also boosts productivity with its new and improved control sys-

tem. The system allows the operator to control the machine with quick, precise movements for accurate demolition and other complex tasks.

In addition to the unit's system attributes, Brokk expanded on its versatility with several changes to the physical design. The new 400D has a slightly bigger envelope than the 330D, weighs approximately 2,200 lbs (998 kg) more, and can reach out horizontally nearly 23 ft (7 m). With a total weight of 12,125 lb (5,500 kg), it can handle heavier attachments like the hard-hitting SB 552 breaker. It also works well with attachments like crushers, grapples, drills, and scabblers used with its sibling machine, the electric-powered Brokk 400. The unit also features enhanced stability and durability with its larger undercarriage and sturdier steel hood. In addition, the 400D features a powerful new engine.

www.brokkinc.com

Putting the Lid on Demolition Site Dust

The HPW-DUST high-pressure dust suppression system from Finnish manufacturer Dynaset cuts 52 percent of dangerous dust emissions compared to traditional irrigation methods. When working with the HPW-DUST, the air is significantly clearer at work sites. Visibility is better, the air is safer to breathe, and even the taste and smell of the dust is removed. The system can be used in all environments where dust emission is considered.

The system is based on the Dynaset HPW high-pressure water pump, which is powered by the hydraulics of the carrier machine. High-pressure microscopic water mist is sprayed directly on the treated area through special nozzles preventing the dust from spreading. The water mist forms a cover that dust particles cannot penetrate, resulting in a dust-free environment. The weight of a single water-bound dust particle increases dramatically, which makes it fall. The particle is so tiny that it does not become wet enough to make it soggy.

Too often, the demolition industry uses old-fashioned solutions for dust suppression, such as low-pressure water irrigation and electrically charged suppression systems. The widely used low-pressure models consume large amounts of water leading to muddy sites. Electrically charged systems are usually very expensive and take up a lot of space. Dynaset provides more

efficient solutions to replace old technology for better results. An effective dust particle binding, compact size, and low water consumption, as well as targeting the dust suppression to the correct area, are the specific features of the Dynaset HPW-DUST.

"Water cannot be viewed as an infinite resource because there is a price for acquiring it," says Dynaset sales manager Anni Karppinen. "Workers must handle flooding on site when using traditional low-pressure dust suppression because of the high volumes of water. With high-pressure water mist, there will not be such problems."

Proved to be more efficient

Independent air quality research conducted by the Metropolia University of Applied Science found that high-pressure dust suppression are a more effective method than traditional irrigation to reduce dust emissions while brushing streets. The research measured PM10 dust particles which are considered to be air pollution and dangerous for health.

The research group measured dust emissions before, during and a couple of hours after brushing. The dust emission samples were collected with a mobile laboratory called the "Sniffer." The tests were performed with a Snowek street sweeper equipped with Dynaset HPW-DUST high-pressure dust suppression, two



side brushes and a water pistol. Also a traditional irrigation system was installed. In the tests, three equal stretches were driven with the street sweeper, one without dust control, one with traditional irrigation system, and one with a high-pressure dust suppression system.

The tests found that the high-pressure dust suppression reduces 52 percent of PM10 dust concentrations compared to a low-pressure irrigation system while brushing, and that PM10 dust concentrations are 82 percent less with high-pressure dust suppression than without dust control while brushing. In addition, the air remains cleaner after brushing when high-pressure dust suppression is used. And, brushing momentarily increases the dust in the air with all brushing methods.

www.dynaset.com

MB's New Small Crusher Buckets

Italian crusher bucket manufacturer MB has added two smaller versions of its MB-L series suitable for loaders, skid steer loaders, and backhoes. The new models, the MB-L120 and the MB-L140, complement the extensive range of MB products, adapting to all skid steer loaders from 2.5 t up, and backhoes in the 5 t to 8 t class. Made with the same materials and the same technology as existing MB crusher buckets, the new MB-L models will become a valuable tool for those needing



New Multi-Ripper® Talon™ Bucket

Leading Edge Attachments, Inc. (LEA), now offers the patented Multi-Ripper® Talon™ Bucket as the new addition to the Multi-Ripper SHARC Product line.

LEA Multi-Ripper® products have shown to replace hammers, blasting and rock trenchers, for a fraction of the cost. Designed mainly for utility pipeline contractors, the new Talon™ Bucket works on the same principal as the award-winning Multi-Ripper® Bucket, except the Talon™ is very narrow, and the leading edges have been redesigned so that the center rib can be eliminated, thus improving capacity fill and dumping for a narrow bucket.

The performance of this style of maximum breakout "one tooth at a time" bucket greatly exceeds all other designs of rock bucket ripper combinations. It has saved hundreds of thousands of dollars by avoiding the use of rock trenchers, hammers and blasting. Made in America, the Multi-Ripper® Talon™ Bucket is the newest addition to the highest quality and most productive rock ripper bucket combinations available on the market.

LEA products will be shown at CONEXPO-CON/AGG in Booth 31040, Central Hall 1.



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A Straiig

“To sell our home to buy a professional concrete core drill system was in fact the best decision we could take at that time. But that was 20 years ago,” says Alberto Libanio, founder and owner of the Brazilian controlled demolition and concrete sawing and drilling firm Furacon. Today Furacon is believed to be the largest contractors in this sector in the entire South America. PDA’s Luiz Carlos Beraldo reports.

BY LUIZ CARLOS BERALDO
PHOTOS: FURACON

Facts about Furacon

Name: Furacon Systems Cutting and Drilling Concrete Ltd.
Location: Sao Caetano do Sul, São Paulo, Brazil
Founded: November 1993
Employees: 41
Equipment: 2 demolition robots and more than 100 concrete cutting machines and systems
Activity: Company specializing in concrete cutting with diamond tools using drill systems, flatsaws, hand saws, wallsaws and wire saws. In addition offer controlled demolition with remote controlled demolition robots equipped with hydraulic crushers and breakers

Below Alberto Libanio at Furacon.



When selling the apartment where they lived to buy their first drill imported in 1993, the entrepreneur couple Alberto Libanio, at that time 28 years old, and his wife Rosana, believed in success. But they never imagined that 20 years later they would be owners of one of the largest companies specializing in cutting holes and controlled demolition in South America, and perhaps in the entire Latin America.

“Mexico has large firms in this sector and you might find a big competitor there who we don’t know of. But what I hear from the major manufacturers in this sector, that also are our suppliers, we are supposed to be the largest in Latin America and with out any doubt in South America,” says the engineer Alberto Libanio, partner and founder of Furacon. “In fact, not noticed as it happened, was it our work that led us to this position. We do everything with great care and dedication, always using the best equipment available in the world.”

Pioneers

“We were the first customers in Brazil of some of the world’s leading manufacturers of equipment in this field. I bought the first and the second remote controlled demolition robot of the brand Husqvarna sold in Latin America. Other machines of various manufacturers also had my company, I believe, as a good gateway to the Brazilian market. One of our philosophies is to maintain on the cutting edge of new technologies and try to be the first to introduce new machinery and methods in our contracting,” he says.

When Libanio created the company in 1993 the target was to specialize in concrete drilling. But rather quick the array of services expanded to all sorts of concrete sawing and drilling services as well as controlled demolition, diamond wire sawing, etc. Furacon made it the “Brazilian way”, which means that they solved their client’s problems and tasks peacefully and unconventional. It is called “Jeitinho”. With the time any project that the clients asked help with, Furacon found the solution and still finds. Their broad variety of services is today offered to clients on the entire Latin American market. Any job is to complicate for Furacon. They see it instead as a challenge.

“Today we are a company that provides solutions, not just a company that drill holes in concrete anymore. Large firms often come to us for help as they know that we can beat most type of challenges,” says Libanio.

“Jeitinho” The Brazilian way

Libanio is not kidding and some of the company’s success stories prove it. One good example is a project in Caracas, Venezuela where a huge limekiln, called Hornos de Cal, had to be demolished. The large building was located in a very sensitive area with a large number of private homes around the kiln. A thing is that people living in the community also refused to leave the area temporarily while the kiln was demolished. A severe conflict had blown up between the construction company who would like to demolish the construction and the people who lived in the vicinity. Several attempts had been made to go ahead with the demolition



Pictures above showing Furacon new head quarters.

plans but with no success. A demolition with traditional methods would have been impossible due to that it would risk the lives of the people living around the kiln. Also due to the bad state the kiln itself was a risk for the people living close. The plan was to build a station for the new and modern cable car line in the location where the kiln was standing. The cable car line would bring many benefits for the people living in the area and for the whole region.

“For us this project became a real challenge. Not only that we had to figure out the method how to demolish the building, we also had to resolve the conflict with the citizens,” says Libanio.

At first the Furacon staff had to enter the site under the escort of armed soldiers from the Venezuelan government.

“After several threats and difficulties we managed to start to talk to the people who lived close to the building we were demolishing. We

explained how they would benefit from having a station for the new cable car line, how our method minimized the risks during the demolition work and how much their safety and life would improve without the dangerous and deteriorated building. Soon we got friends with the people, we even had parties with them making barbeques,” tells Libanio.

Libanio continuous and tells that instead of shooting at the Furacon workers and machines the people started to collaborate. The Furacon workers made friends with the citizens and soon they could dispense the armed escort. The project finished in a very positive way and everybody were happy.



ght Hole



Knocking down a 45 m chimney in the Brazilian state of Para with a remote controlled demolition robot from Husqvarna.

Furacon was initially hired to carry out an extremely heavy underground demolition job in the Caracas Metro line. When they managed to finish that job in record time they were offered the demolition of the kiln Hornos de Cal. This particular project is called the Metro Cable Project. The good results for Furacon rendered in a successful partnership in Venezuela, which lasted three years.

Zero risk with powerful robot

Libanio, who runs the company with his wife Rosana and her brother Joseph Fernando, speaks with pride of the team of 41 employees. Most of the employees have been with the company for a minimum of 10 years. They are well-trained and experienced people who go to job every day ready to face any challenge, according to Libanio.

Another challenging project took place in September 2013 in the Brazilian city Itapeva in the state of São Paulo. Furacon was hired to demolish a 45 meter high chimney built of bricks and concrete.

The company ordering the demolition from Furacon had tried

before to demolish the chimney with no success, an attempt that unfortunately resulted in fatality accident. After this tragic accident it was decided that a safe demolition method had to be found that did not risk any workers life. Methods to break or explode the chimney were impossible due to the location of the chimney. Furacon presented the solution and a safe method to take down the chimney by using a remote controlled demolition robot from Husqvarna. The robot was hoisted up with a crane and the chimney could easily be taken down from the top to the bottom. The robot was equipped Bluetooth technique and the operator could safely control the demolition work from the ground.

"The way to lift up the robot with a crane was the secret of the solution. The idea we got from a similar project carried out in USA but we did some adjustment to the method that was used in the US. What was different was also that we had no point of lateral support which they had in the American case. In order to make the robot work continuously we had to anchor and balance everything very well in order to take out as much as possible from the robot. We were able with our robot method to offer a safe and





also fast way to take down the chimney," says Libanio.

20 years later

In November 2013 Furacon turned 20. When Libanio gets an additional question about the sold apartment he confesses and replies: "Actually, before we bought our own home back, we preferred to invest even more in the company in the early years. Much later we decided to buy even a new apartment. The strategy of giving priority to the company yielded good results for us," says Libanio.

Furacon has two demolition robots and more than 100 professional and high tech machines and equipment for concrete sawing and drilling and fleet of 11 service vans. The 20th anniversary was marked by the inauguration of the company's new headquarters in São Caetano do Sul, in São Paulo state. The new premises covers 1,160 m² divided in three floors which three times bigger than the old office. At the time this report was written Furacon was involved in some major projects in Brazil such as the Metro and two monorails, the Corinthians stadium, to be used in the World Cup 2014 and the Guarulhos International Airport, all in São Paulo. Further Furacon has taken on jobs at Parauapebas mine Vale in the state of Pará, the revitalization of a big pier at the Petrobras petroleum factory in Angra dos Reis in the state of Rio de Janeiro, etc.

"We have quite a lot to do and our work is our best advertisement," Libanio says, without and direct fear of the ups and downs in the economy of the country.

"In 2014 there may be a small reduction in the pace of construction in the country, mainly due to the World Cup. The world cup will cause many days of economic inactivity besides the fact that there are elections for president, congress and state governments in Brazil in 2014. The election traditionally causes disruption in planning and starting up new projects. In 2015 though I believe we will see a recovery and a slightly better pace, says Libanio.

Furacon is preparing for a market that no doubt will continue to grow. But they also know that the competition will increase. For Furacon their certification as a LEED company (Leadership in Energy and Environmental Design) will help them to stay competitive.

How it all began

Alberto Libanio worked as an employee for a large Brazilian construction company. A long time ago he came across the first core drill he ever had seen in Brazil. It was handmade by a friend of him, the mechanical engineer Valter Brancachio. Valter borrowed the core drill to Libanio to use during holidays and weekends. "Making holes with that core drill paid a good part of my engineering college," Libanio remembers.

This was the opening for Libanio to enter this market and to realize that there was a lot of other and maybe more efficient machines and systems to use in order to increase the productivity.



The pictures on this page is showing the demolition of a 45 meter high chimney at the Lafarge plant in the city of Itapeva in the state of São Paulo in Brazil. The chimney had a diameter of 2.80 meters in the top and a 6 meter diameter in the bottom. The Husqvaran Construction Products DXR 310, weighing about 2 tons was robotrobot demolition of two tons was hoisted by a 60 feet tall crane. It took Furacon five days of work to demolish the chimney which was built of a mix of concrete and bricks. The chimney wall measured 47 cm in thickness in the top and about 120 cm in the bottom. The job was carried out very smoothly and efficient and to full satisfaction from the buyer side.

He also learned with the time that many new systems could be imported. This was the point that he understood that he had to sell his home in order to create more means to invest in the right equipment and that was where our story started. Part of the money that he got from sales of his home he bought a brand new drill systems from Hilti. This was in 1993. Three months after he bought his first drill systems he bought a second system from Hilti. And from that time new machines and systems has been invested in continuously making Furacon the largest and best-known company in its field in Latin America.

Um furo certo

TEXTO LUIZ CARLOS BERALDO
FOTOS DIVULGAÇÃO / FURACON

Vender a casa para comprar uma perfuratriz profissional foi a melhor decisão que Alberto Libanio podia tomar há 20 anos. Hoje ele tem uma das maiores empresas de cortes, furos e demolição controlada da América Latina.

Ao venderem o apartamento em que moravam para comprar sua primeira perfuratriz importada, em 1993, o casal de empreendedores Alberto Libanio, de 28 anos, e sua esposa Rosana, acreditavam no sucesso. Mas não imaginavam que 20 anos mais tarde seriam donos de uma das maiores empresas especializadas em furos, cortes e demolição controlada da América do Sul - e talvez da América Latina.

“O México tem grandes empresas, talvez haja lá algum grande concorrente que não conhecemos. Mas acredito, pelo que ouço dos grandes fornecedores mundiais que me atendem na venda de equipamentos, que somos os maiores da América Latina em nossa especialidade, hoje”, afirma o engenheiro Alberto Libanio, sócio e fundador da Furacon. “Na verdade, nem notamos como isso aconteceu, foi nosso trabalho que nos levou a essa posição. Fazemos tudo com muito cuidado e dedicação, usando sempre o melhor equipamento disponível no mundo”.

Pioneiros

“Fomos o primeiro cliente de alguns dos principais fabricantes mundiais de equipamentos de furos e cortes existentes hoje no Brasil. Comprei o primeiro e o segundo (seis meses depois), robô de demolição da Husqvarna vendidos na América Latina. Outras máquinas de diversos fabricantes também tiveram minha empresa como porta de entrada para o mercado brasileiro. Ser o primeiro, sair na frente em equipamentos e máquinas, foi sempre um dos pontos fortes da Furacon”, destaca.

Quando criou a empresa, em 1993 pensava especializar-se em furos, mas uma coisa puxou outra, o que levou aos serviços de corte e, em seguida, demolição controlada. O “jeito brasileiro” de resolver crises de forma pacífica, também contribuiu para sua projeção no mercado internacional, especialmente o latino americano, onde passou a ser requisitada para grandes desafios. “Hoje somos uma empresa de soluções, e não apenas de cortes e furos. As grandes empresas nos procuram porque sabem que vencemos desafios aparentemente insuperáveis”.

Jeitinho brasileiro

Ele não está brincando. Alguns de seus casos de sucesso provam isso. Como aconteceu na Venezuela, onde era preciso demolir uma imensa edificação conhecida como Hornos de Cal (forno de cal), na grande Caracas, mas havia uma comunidade morando no entorno que se recusava a sair mesmo temporariamente, e uma situação de conflito havia se instalado impedindo tentativas anteriores de demolição da edificação que colocava em risco a vida das pessoas, devido a seu estado de deterioração. Em seu lugar, seria construída uma estação de um moderno sistema de bonde teleférico que traria muitos benefícios para a comunidade das regiões envolvidas.

“Não bastava saber como desconstruir o edifício, tínhamos que resolver o conflito. No

começo, entrávamos na obra sob a escolta de soldados do governo. Pensamos em nos aproximar das pessoas que moravam ali e nos ameaçavam. Conseguimos isso fazendo churrasco, almoçando com eles e conversando sobre o que era o nosso trabalho e como isso seria importante para eles também, evitando acidentes, etc. Fizemos amizade com eles. Então, em vez de atirar em nossas máquinas e nas placas da obra, como faziam no início, eles passaram a colaborar conosco, e foi possível dispensar a escolta armada. No final éramos todos grandes amigos”, resume.

“A princípio, entramos lá para uma obra de alguns meses. Após terminar em tempo recorde uma demolição subterrânea extremamente difícil no Metro de Caracas, foi nos concedida a responsabilidade sobre a demolição do Hornos de Cal, que passou a ser chamado de projeto Metro Cable. O bom resultado nos rendeu uma parceria de sucesso, na Venezuela, que durou três anos”.

Libanio, que dirige a empresa junto com a esposa Rosana e o irmão José Fernando, fala com orgulho da equipe de 41 empregados - a maior parte, na empresa há mais de 10 anos. “São pessoas capacitadas e experientes que vão a campo prontas para enfrentar qualquer desafio”.

Risco zero, com robô demolidor

Outra tarefa desafiadora aconteceu mais recentemente, em setembro de 2013, na cidade brasileira de Itapeva, estado de São Paulo. Era preciso demolir uma chaminé de tijolos e concreto com 45 metros de altura onde, por tentativa anterior de demolição (frustrada) ter resultado em acidente com vítima fatal, a empresa contratante exigia como requisito, na licitação, a ausência total de riscos à vida humana. E não havia como implodir ou derrubar a estrutura sem causar danos e arriscar vidas no entorno. A solução foi usar um robô de demolição içado em uma lança de guindaste até o alto da chaminé, que foi destruída de cima para baixo.

“A forma de içar e de ancorar o robô lá no alto foi o segredo da solução. Buscamos inspiração em um case que vimos nos Estados Unidos, mas fizemos adaptações aqui pois não tínhamos um ponto de apoio lateral como eles tinham no caso americano. Isso fazia a plataforma ser impulsionalada para trás toda vez que o robô desferia um golpe na chaminé. A solução foi encontrar a forma apropriada de ancorar tudo, com inclinações e pesos bem distribuídos e bem dimensionados, e com equipamentos posicionados com segurança. O robô, controlado por bluetooth, eliminou os riscos à vida humana, como queria o cliente, e a chaminé comprometida foi demolida”, conta Libanio.

20 anos depois

Em novembro de 2013 a Furacon completou 20 anos. Perguntado sobre o apartamento vendido para dar início ao negócio, Alberto confessa: “na verdade, antes de comprarmos nossa casa própria, de volta, preferimos investir mais na empresa, nos primeiros anos. Só mais tarde compramos um novo apartamento”. A estratégia de dar prioridade para a empresa rendeu bons resultados: hoje a Furacon é reconhecida como a mais tradicional do mercado que lidera, e conta com dois robôs de demolição e mais de 100 máquinas de corte e perfuração de alta tecnologia, além de frota 11 veículos, a maioria comerciais leves, de apoio. O aniversário de 20 anos será marcado pela inauguração da nova sede da empresa, em São Caetano do Sul, estado de São Paulo, com 1160 metros quadrados com três pavimentos, quase o triplo das instalações pioneiras, localizadas em terreno vizinho, de 380 metros quadrados em dois pavimentos.

No momento em que esta reportagem era produzida, a Furacon prestava serviço em algumas

das principais grandes obras em andamento no país, como o Metrô e dois monorrelés de São Paulo, o estádio do Corinthians (a ser usado na Copa do Mundo de Futebol 2014), o aeroporto internacional de Guarulhos (o maior do país) em São Paulo, e em unidades da mineradora Vale em Parauapebas, estado do Pará, e na Revitalização de um grande Pier da Petrobrás em Angra dos Reis, estado do Rio de Janeiro. “O nosso trabalho é nossa maior propaganda”, afirma, sem medo dos altos e baixos da economia.

“Em 2014 talvez haja uma pequena redução do ritmo das obras no país, principalmente devido à Copa de Futebol, que vai provocar muitos dias de inatividade econômica, além do fato de haver eleições (para a presidência, o congresso e governos estaduais), o que por si, tradicionalmente provoca interrupção nas contratações de novas obras”. Para o próximo ano esperamos uma recuperação e um ritmo um pouco melhor”. Preparando-se para um mercado que promete crescer, mas com muita competitividade, a empresa está a caminho da obtenção da certificação Leed (Leadership in Energy and Environmental Design). “Queremos continuar na frente, em todos os aspectos”, conclui.

Como tudo começou

Alberto Libanio trabalhava como empregado para grandes empresas da área de construção civil, no Brasil, quando conheceu a primeira perfuratriz vista no país. Era uma máquina construída artesanalmente por um amigo, o engenheiro mecânico Valter Brancachio, que a emprestava para o amigo Alberto, nos feriados e fins de semana. “Paguei boa parte da minha faculdade de engenharia fazendo furos com aquela máquina, nos finais de semana”, lembra. O estreito contato com o mercado permitiu vislumbrar o potencial do mercado ainda incipiente e, ao descobrir que havia máquinas muito mais modernas e eficazes, que poderiam ser importadas, ele não teve dúvidas: vendeu a própria casa para importar sua primeira perfuratriz, uma Hilti, que daria origem à empresa, em 1993. Três meses depois, ele já encomendaria a segunda, e nos anos seguintes, mais máquinas... Duas décadas depois, a Furacon é a das maiores e mais conhecidas de sua área na América Latina (detalhes acima).

Legendas para fotos de Hornos de Cal:

Demolição Controlada do Tanque “Hornos de Cal” para a implantação do Projeto Metro Cable na cidade de Caracas – Venezuela. O tanque tinha 30m de diâmetro e 19 metros de altura. A demolição durou 65 dias, e foi feita em três fases: retirada da cúpula (Wall Saw), retirada das paredes (Wall Saw e Wire Saw) e retirada das bases (Wall Saw e Wire Saw). Entre máquinas, acessórios e peças de reposição, foram transportadas por via aérea 3645 quilos de materiais no trabalho realizado por 17 colaboradores da Furacon.

Legendas para Fotos da Chaminé da Lafarge em Itapeva

Demolição de chaminé da Lafarge do Brasil, em Itapeva, São Paulo, com 45 metros de altura, 2,80 metros de diâmetro inicial e 6,00 metros de diâmetro final. O robô de demolição de duas toneladas foi içado por uma lança com 60 metros de altura. Foram cinco dias de trabalho para demolir a torre cuja parede - um sanduíche de concreto e tijolos - tinha 47cm de espessura no topo e 120 cm de espessura na base.

Ficha Técnica

Nome: Furacon Sistemas de Cortes e Perfurações em Concreto Ltda
Localização: São Caetano do Sul, São Paulo, Brasil.
Fundação: Novembro de 1993
Empregados: 41
Equipamentos: 2 robôs de demolição e mais de 100 perfuratrizes e máquinas de corte
Atividade: Empresa especializada em cortes e furos em concreto com ferramentas diamantadas, e demolição controlada pelos sistemas flat saw, hand saw, wall saw, wire saw, crusher e também demolição remota com uso de robôs operados por controle remoto via Bluetooth.



The pictures above is showing the demolition of the lime silo Hornos de Cal in Caracas, Venezuela. The demolition job was carried out for the implementation of the Project Metro Cable. The silo was 30 m in diameter and 19 feet tall. The demolition lasted 65 days and was done in three steps: Removal of the dome (wall sawing), removal of walls (wall and wire sawing) and withdrawal of the base (wall and wire sawing). 17 employees from Furacon where involved in the project.

The Worlds Largest Multi-Kit Processor

Monday December 9, 2013, was a historic day for Italian hydraulic demolition tools manufacturer Trevi Benne and its Swedish distributor Andersen Contractor. Trevi Benne delivered the first of its new MK70 multi-purpose kit processors.

Andersen Contractor sold the first MK70 unit to the Swedish demolition contractor Rivners in Stockholm. "I am very happy that it was Rivners who was the first to invest in this tool," says Andersen representative Thomas Hind. "The company has the kind of big jobs suitable for a multi-processor of this type, and always stays at the forefront of testing new equipment."

Eight models in the series

There are currently eight models in the MK series, which is designed for carriers in classes up to 100t. For each size, there are the five different standard jaws of pulverizer, steel shear, concrete crusher, and nibbler, plus a special pulverizer with dual steel blades that cut rebar while it crushes the concrete. Suitable for carriers between 75t and 100t, the MK70's cutting power with steel shear or concrete crushing jaw is 1100t, and 490t with the pulverizer jaw. Trevi Benne is also launching the new MK13, which weighs 1.4t and is suitable for 12t to 18t carrier machines. It is the smallest combicutter with hydraulic jaws. There's also the MK 50, which weighs 6 t and is suitable for carriers from 60t to 75t. Cutting power of steel shear jaw is 875t, and 380t with a pulverizer jaw.

"The operator can change the jaw tool in a few



minutes," says Andersen Contractor representative Svend Andersen.

A MK multi-kit processor is an excellent and versatile demolition tool with high cutting force, fast jaw movements, and interchangeable jaws that can be changed in five minutes. This makes MK an effective and affordable option for demolition of concrete and steel structures and secondary crushing of concrete.

"We are very pleased with the MK70 that worked very well on its first job," says Rivners representative Richard Steen. "It is very powerful and fast. The job has been faster than we expected and we are pretty picky when it comes to demolition tools. We also appreciated very much that the management from Trevi Benne in Italy travelled to Sweden to attend the delivery of the MK70."

The demolition of the Nutek Building

The premiere demolition test with the new MK70 took place in Liljeholmen in Stockholm. Rivners was contracted to demolish the Nutek Building, which has been the headquarters of AB Atomic Energy since 1964. When

the semi-government agency was disbanded, Nutek took over the building. Once demolition is complete in February 2014, the site will be replaced with 225-unit apartment building.

The Nutek building had 10 floors plus two basement floors. The top four and a half floors were demolished using a Brokk 400 with a 700 crusher, a Take Job 290 with NPK crusher, and skid steer loaders. Small machines were used as some remote cooling pipes to other buildings went through the Nutek Building and were not to be touched.

When Rivners was given permission to use heavier equipment a Komatsu PC800HRV with a reach of 128 ft (39 m) and an MK70 attachment was brought in. Additional equipment included a Komatsu 450HRV with a 95 ft (28 m) reach boom equipped with a Trevi Benne MK23P with Power Booster. About 40,000 tons of reinforced concrete will be demolished plus another 247,200 ft³ (7,000 m³) of excavation, including 70,630 ft³ (2,000 m³) of soil remediation.

www.trevibenne.com



Introducing:

The world's smallest giant

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60



TUNNELING

CEMENT

PROCESS

NUCLEAR

CONSTRUCTION

MINING

INTRODUCING BROKK 60 – THE NEXT BIG THING IN REMOTE-CONTROLLED DEMOLITION

With the Brokk 60 we have taken another leap forward in safe and effective confined-space demolition. It is many times more productive than handheld equipment, yet so compact and nimble that it works wonders in places where traditional demolition machines simply cannot go.

Compared to its older brother, the Brokk 50, it boosts productivity by almost 25% with more power from the breaker, faster, more precise movements, a new control system, and an even lower profile. The low weight – only about half a ton – makes it perfect for interior demolition on standard floors and it can easily fit in an ordinary passenger elevator. It can even 'walk' up and down stairs.

The all new Brokk 60 – A true giant. Except for the size.

See us at CONEXPO-CON/AGG booth #8547!

Original Demolition Power™

BROKK[®]

Will Las Vegas Make the C Desert Bloom in March?

A U.S. construction market that finally is beginning to show clear signs of growth is also very dependent on positive injections from large domestic and international trade shows. Will this happen when CONEXPO-CON/AGG takes place in Las Vegas March 1-4, 2013.

The dryness and warmth of the Nevada desert is soon going to pull visitors to Las Vegas from all corners of the world. Every three years, the Las Vegas Convention Center becomes a boiling construction pot with the annual World of Concrete followed by the mega- construction CONEXPO-CON/AGG show, organized by the Association of Equipment Manufacturers (AEM). In addition to AEM, preincipal sponsors include the National Ready Mixed Concrete Association (NRMCA), and the National Stone, Sand & Gravel Association (NSSGA). Show sponsor is Associated General Contractors of America (AGC).

CONEXPO-CON/AGG is the international gathering place every three years for the construction industries, showcasing the latest technologies, equipment, products, and services. The show is co-located with the 2014 IFPE exposition for fluid power/motion control/power transmission. In 2011, the combined shows attracted nearly 120,000 registered attendees, with more than 2,400 exhibitors occupying more than 2.34 million net ft² (217,393 m²) of exhibit space.

This year, expectations for the show are bigger than ever. The U.S. construction sector is finally showing clear signs of getting out of the slumber that has paralysed the industry for quite some time. There is a clear demand among contractors all over the country to get to Las Vegas and see for themselves what new products are on the market. And for the first time in several years, many contractors are ready to spend money as the new contracts keep coming in.

An uneven situation

But the danger is not over on the market, which makes many contractors careful. The uptick in the U.S. market is very uneven. Some states and cities are showing robust activity while others fight for survival. For instance, is close to booming while Detroit is in a state of bankruptcy; some are worried that Chicago will be on the same path. The crises leaves its marks here and there. As a whole, there are



many positive signs of that the construction market actually is growing across the country and will continue to do so. A trade show like CONEXPO-CON/AGG, together with its exhibitors and attendees, are playing a major role in making this happen.

Attendees and the exhibits

CONEXPO-CON/AGG attracts persons involved in all segments of the construction, aggregates and ready mixed con-

Construction



crete industries, including contractors, materials producers, and government and institutional sector officials.

CONEXPO-CON/AGG exhibits showcase the latest technologies and innovations in equipment, products and services for the construction industries. Product concentration areas make it easy for visitors to locate specific products, services and exhibitors of interest. The show also features specialized exhibit pavilions, including a focus on information technology/management, and international exhibit pavilions.

CONEXPO-CON/AGG also offers a comprehensive education program during the five-day exposition, with seminars emphasizing industry issues and trends, management and applied technology.

Welcome to Las Vegas and PDa

For PDa magazine, CONEXPO-CON/AGG is of particular interest for discovering the latest equipment for demolition and recycling equipment. A large number of North American and international manufacturers of carriers and hydraulic attachments will be on hand. Mobile screening and recycling equipment is also expected to be in the spotlight with a large number of new products, as will light and handheld demolition equipment.

Though there is typically a presence of professional concrete sawing and drilling equipment as well as equip-

Selected list of exhibitors at CONEXPO-CON/AGG 2014 related to demolition concrete sawing and drilling and recycling

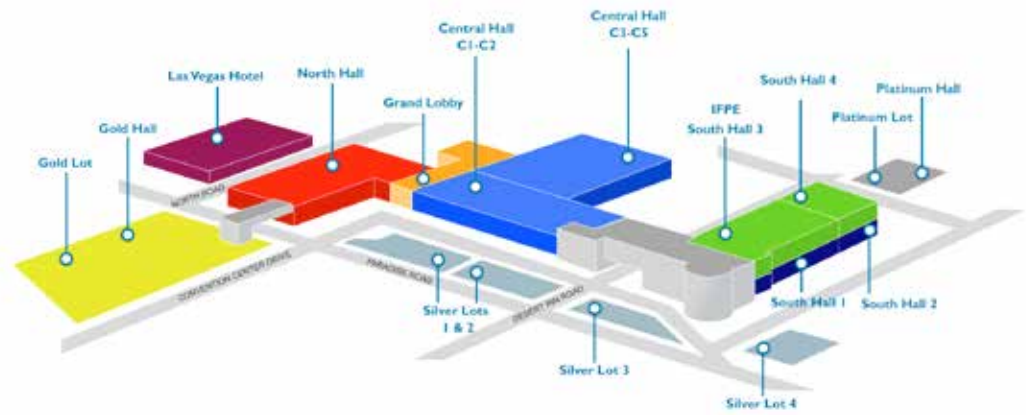
Allen Engineering Corporation	Astec Industries Inc
Allied Construction Products LLC	Astec Mobile Screens
Allied Power Products Inc	Atlas Copco
Allied-Gator Inc	Atlas Maschinen GmbH
ALLU Group Inc	AUSA
Alpine Equipment	Autec Safety Remote Control
Anaconda Equipment International	Bell Equipment Company
Anaconda USA	Breaker Technology Consolidated
Aqua Blast Corporation	Blaklader
Arrowhead Rockdrill Company Inc	Blasters, Inc
Association of Equipment Manuf. (AEM)	Bobcat
Astec Inc.	Brokk Inc



Brunner & Lay
 Buffalo Turbine
 Cangini Benne SRL
 Canycom USA Inc
 Carhartt Workwear at Rugged Outfitters
 Case Construction
 Case Construction Equipment
 Caterpillar Inc
 Chicago Pneumatic
 Construction & Demolition Recycling Association
 Construction Equipment Association, CEA
 Continental Biomass Industries Inc
 Daemo Engineering Ltd
 Crusher Wear Parts
 CS Unitec
 Doosan Infracore Construction Equipment
 Doosan Infracore Engine Doosan Portable Power Doppstadt US
 Diamond Blade Warehouse
 Diamond Speed Products
 Diamond Z / Rule Steel Diamond Z
 Drumcutters, Inc
 D-Tec B.V.
 Dynapac - Part of Atlas Copco Group
 Dynaset Oy
 Dyno Nobel Inc
 Eagle Crusher Company Inc
 engcon Holding AB
 E-Z Drill Inc
 Fujian Quanzhou Huasheng Mach Equip. Fujian Tongyong Good&Materials Imp.&Exp. Furukawa Rock Drill, USA
 Gehl Company
 Genesis Attachment
 Getz Recycling Equipment LLC
 Giant Hydraulic Tech Co., Ltd., Anhui
 Gorilla Hydraulic Breakers
 GSSI
 Hidromek
 Hilti Inc
 HARTL Engineering & Marketing GmbH
 HITACHI Construction Machinery Company
 ICS Blount, Inc. ICUEE
 Inan Makina A.S. Indeco North America
 Indexator Inc
 Hydraulic Breaker Services LLC
 Hydro-Ram
 Jiangsu Shenxi Construction Machinery
 IROCK Crushers, LLC
 JCB Inc
 Jetstream of Houston
 Jewell Attachments LLC
 John Deere Construction & Forestry Comp
 Keestrack
 Kormann Rockster Recycler GmbH
 KPI-JCI
 K-Tec Earthmovers Inc
 Kubota Engine America
 Kubota Tractor Corporation
 Lake Erie Portable Screeners
 Kinshofer NA
 KOCEMA (Korea Construction Equipment Manufacturers Association)



CONEXPO-CON/AGG and IFPE 2014



Kobelco Construction Machinery USA
 Kobelco Cranes North America Inc
 Leading Edge Attachments Inc
 Komatsu America
 Liebherr Construction Equipment Co.
 Lynx Attachments
 Link-Belt Construction Equipment Company
 Lippmann Milwaukee Inc
 Liugong Machinery Co., Ltd
 Magnum Attachments Inc
 MALA GeoScience USA Inc
 Manitou Group
 Multiquip Inc
 Mustang Manufacturing
 Montabert /Geith /Tramac Corporation

NPK Construction Equipment, Inc.
 Okada America
 OSHA Training Institute Ed Centers
 Paladin - Powerful Attachment Tools
 Parker Plant Limited
 PDa Magazine
 PDi Magazine
 Portafill International Ltd
 Powerscreen
 Robit Rocktools Ltd
 REMU
 Rhino Equipment Group
 RUBBLE MASTER AMERICAS, Corp.
 Sennebogen LLC
 Sandvik Construction
 Sany Heavy Industry Co Ltd

Simex, srl
 SSAB
 TABE
 Takeuchi
 Terex Corporation
 Tesab Group
 Trevi Benne SPA
 Waste Handling Equipment News (WHEN)
 Vibra-Ram Inc
 Volvo Construction Equipment NA, Inc.
 Wacker Neuson Corporation
 Wildcat Rock Drilling Tools/ Kwang Sung
 GM
 Yanmar America Construction Equipment
 Wirtgen America Inc
 World Diamond Source

Global industry support enhances quality show experience at Conexpo-Con/Agg

CONEXPO-CON/AGG and IFPE 2014 will be the global industry gathering place in 2014 with the help of worldwide industry support. More than 95 allied associations and groups are official show supporting organizations; hundreds of industry meetings and conventions will be held at the shows; and key countries for industry business are hosting international exhibit pavilions.

CONEXPO-CON/AGG and IFPE 2014 will be held March 4-8, 2014 at the Las Vegas Convention Center in Las Vegas, USA, with a focus on construction, construction materials and fluid power/power transmission/motion control.

Safety and Education

Safety and education/training will be spotlighted with focused industry events in the outdoor exhibit lots, in addition to the specialized product and country pavilions on the show floor.

Interactive Online Planner

Attendees can efficiently plan their visit with the interactive online show planner, now available as a free mobile app, for added convenience and to stay connected during the shows, sponsored by Caterpillar Inc.

"Industry connections broaden our base to enhance the show experience for all - more interaction between qualified buyers and sellers, more industry education, and more networking in a global environment," stated CONEXPO-CON/AGG Show Director

Megan Tanel.

"More than ever, companies are looking at their bottom line and evaluating their investment of time and money. Industry collaborations are one way we offer real value in today's marketplace for all participants," added

IFPE Show Director Melissa Magestro.

Reinforced Show Reputation as Industry Gathering Place

The 95-plus official 2014 show supporting organizations come from the U.S., Canada and 16 other countries worldwide. They promote the shows' value and bring qualified buyer groups to the events, and many help develop direction and content of the shows' education programs to ensure they

meet industry needs.

Besides the U.S. and Canada, these groups represent Africa, Australia, Brazil, Chile, China, Colombia, Germany, India, Korea, Mexico, Philippines, Spain, Taiwan, Turkey, United Kingdom and Venezuela. Eight interna-



tional exhibit pavilions will be featured for 2014: IFPE with China, Italy and Taiwan; CONEXPO- CON/

AGG with China, Ireland, Korea, Spain and United Kingdom. These country-specific pavilions offer attendees a wider range of business solutions and help them develop more global industry contacts, while participating exhibitors gain access to customers outside their home countries.

Also on the show floor are safety and education/training initiatives returning from the last CONEXPO-CON/AGG:

The NRMCA International Truck Mixer Driver Championship, from the National Ready Mixed Concrete Association, will take place in the Blue Lot.

The Lift Safety Zone, from NCCCO National Commission for the Certification of Crane Operators and IPAF International Powered Access Federation, will be in Gold Lot #1817. The Crane Operator Rodeo will be in Gold Lot #2875, sponsored by Maximum Capacity Media.

Several national industry associations are holding their annual conventions or high-level board meetings at the shows; they join the hundreds of other industry and company meetings, from large events to smaller committees and other groups, all taking advantage of the shows to meet and share knowledge and learn from one another.

Mobile App and Planner Make it Easier to Navigate Shows

The show planner - and mobile app - help attendees more easily get around the shows. Attendees can search show maps and exhibitor lists by hall/lot location, booth number, company name and type of product. They can assemble their personalized daily schedule of booth visits and education, and edit it pre-show and onsite. The mobile app will be continually updated with exhibitor and event information and an up-to-the-minute Twitter feed.

www.conexpoconagg.com

CONEXPO Latin America in 2015

The Association of Equipment Manufacturers (AEM), owner of CONEXPO, is bringing its brand of manufacturer-run, top-quality expositions to the Latin America region, using the experience, industry input and global partnerships of CONEXPO-CON/AGG to create another event with real value. It is the first exhibition in Latin America that will be managed by the industry, for the industry based on the CONEXPO model.

The inaugural CONEXPO Latin America will take place October 21-24, 2015 - co-located with Edifica and EXPO HORMIGÓN, in Santiago, Chile (Espacio Riesco, Av. El Salto 5.000 Huechuraba). CONEXPO Latin America is geared toward industry professionals involved in all segments of the construction industry with a focus on the Latin American marketplace from large to small companies, including contractors, materials producers, governmental agencies, manufacturers and service providers.

Product sectors

CONEXPO Latin America will offer a broad array of the newest construction-related equipment, products, technologies and services for Latin America, from leading international and regional companies.

Aggregates Processing Asphalt Production & Paving

Attachments

Blasting Products Compactors Computers

Concrete Production & Paving Drilling

Equipment Earthmoving

Engines/Components/Hydraulics

Generators

Heavy Duty Trucks Industry Services Lasers Technology

Lifting-Aerial Lifting-Cranes Lubricants Safety & Traffic

Testing Equipment

Tires

Trenching & Shoring

Education

The event will feature CONEXPO-quality education sessions, partnering with regional experts and focused on the latest industry trends and technologies.

Industry Support

AEM will collaborate with leading industry organizations, publications, and media from Latin America and around the world to promote the show and bring together an international mix of contractors, manufacturers, dealers and suppliers.

Show Owner and Producer

The Association of Equipment Manufacturers (AEM) is the show owner and producer. AEM is the North American-based international trade group providing innovative business development resources to advance the off-road equipment manufacturing industry in the global marketplace.

www.conexpolatinamerica.com

Caterpillar is "BUILT FOR IT" at Conexpo-Con/Agg



At CONEXPO-CON/AGG 2014, Caterpillar will present its unmatched lineup of machines, technology and services designed with the primary goal of helping customers succeed.

Four Caterpillar exhibit areas totaling about 60,000 ft² (5,574 m²) of floor space will showcase more than 40 machines, most with integrated technologies that help equipment operators, managers and owners get the most from each machine. The displays also present a variety of Cat work tools, U.S. EPA Tier 4 Final engines, components, and service parts, all designed and manufactured to optimize the performance of Cat machines.

More than a dozen new Cat machines will make their North American trade show debut at CONEXPO-CON/AGG. The newest Cat machines to be displayed include F Series hydraulic excavators, M Series medium wheel loaders, new C Series articulated trucks, and G Series off-highway rigid-frame trucks, a new track-type tractor, a new wheel tractor-scraper and a new track drill.

In the North Hall Booth 10915, displays will focus on Cat Connect, which brings together Cat technology products and services in integrated and scalable forms. Regardless of the size and complexity of the operation or the number of machines utilized, Cat Connect gives customers the flexibility to find the right combinations of technologies and services to meet jobsite requirements and deliver positive business results.

The most recently introduced ma-



chines on display include the 336F Hybrid Hydraulic Excavator. The hydraulic hybrid technology proven to reduce fuel consumption by an average of 25 percent in 336G H applications now is incorporated in the refined 336F H. In addition to the hybrid machine, the 390F—largest of the new F Series line—should be a focus of aggregates miners and large earthmoving contractors.

The new M Series wheel loader line will be represented by the 972M XE. It features the XE advanced powertrain, which was first introduced with the 966K XE Wheel Loader. XE technology results in 25-percent lower fuel consumption on average compared to machines with traditional torque converters. The M Series wheel loader line sports a brand new model, the 982M, which delivers the capability to load highway trucks in two passes for superior productivity in bulk materials yards. The new loader also can dig in sand and gravel pits and can effectively handle earth bank excavation. In contrast to the big machines, several models of the recently introduced Cat D Series Skid Steer Loaders, Compact Track Loaders, and Multi Terrain Loaders will be on display. The compact machines feature a completely redesigned cab with first-in-class features, new lift arm design for improved sight lines, and increased engine performance.

An additional Caterpillar exhibit, Booth 1015 in the Gold Lot, will display about 15 machines including a new motor grader and a new scraper, both of which incorporate new technologies to aid the operator and promote high productivity. The nearby Booth 1332 will display the latest from Caterpillar OEM Solutions. An articulated truck with bare chassis is available for mounting specialty bodies and other equipment. In the South Hall, booth 84318, Caterpillar Product Support will present a wide array of components, parts and services available to keep machines running efficiently.

www.cat.com

Hintz Belts Make Work Easier

Worker safety concerns, limited tool and gear visibility and lumbar strain are problems that have been endured by people who wear a waist-secured tool belt for any job. That was until the Hintzebelt was created to increase safety and efficiency while tying rebar. The Hintzebelt was designed to keep wire reels easily accessible to its wearer without compromising the effectiveness of a safety harness. Now, Hintze Belts has created several tool belts that have revolutionized how tool belts are worn. Focusing on maximum safety and comfort, all Hintze Belts strap to the thigh, eliminating the lumbar stress and discomfort caused by the traditional tool belt. With their innovative design, Hintze Belts keep tools tight to the body and conveniently within reach. Whether working in the field or at home, the convenience and comfort of all Hintze Belts tool belts help make the day a little safer and easier.



E-Z Drill Features Model 210B-2 On-Grade Concrete Drills a Conexpo-Con/Agg

Part of the 210B Series of on-grade concrete drills, the Model 210B-2 joins the Model 210B as an easy-to-position unit that drills to a standard depth of 18 in (457 mm). Both drills feature a compact frame, allowing each to operate within a 4 ft (1.2 m) area. The units have been specifically designed for straight-line drilling on a level subgrade, and are ideal for airport work, lane additions and large patchwork jobs. Offering third-generation quality, the enhanced single-gang Model 210B can operate within 6 in (152 mm) of a corner and drill a .75 in (19 mm) hole 9 in (229 mm) deep in about 15 seconds.

The Model 210B-2 also drills within 6 inches (152 mm) of a corner, and provides an inexpensive option for a two-gang system. Both units are totally pneumatic, with the 210B requiring 100 ft³/min (2.83 m³/min) and the 210B-2 requiring 200 ft³/min (566 m³/min). An optional vertical conversion kit enhances the series' versatility, allowing each unit to switch from a horizontal drill to a vertical drill within 20 minutes.



Portable Pitbull™ 2300 Screener Features Redesigned Conveyor, Increased Output, Electric Option

Lake Erie Portable Screeners will feature its rugged and highly portable Pitbull 2300 Screener at Booth 50059 during CONEXPO-CON/AGG in Las Vegas. Available in both diesel and electric-powered models, the compact Pitbull™ 2300 was developed with simple operation, maintenance, and transport in mind. The machine incorporates several unique features most notably full hydraulic operation, tubular frame construction, a Torflex axle, and a reversible shaker that set it apart for mid-size screening projects.

Pitbull 2300 frames are manufactured with high-quality, structural tube steel, which reduces noise and vibration, and minimizes the risk of cracks and structural failures common in machines with C-channel construction. The screener incorporates heavy-duty materials throughout. All stress points are fully gusseted, and both stress points and attachment points are 100 percent welded with high-strength steel. The result is a machine with a curb weight of 13,440 lb (6,096 kg).

Powerscreen crushes ivory

Last November US federal officials used a Powerscreen impact crusher to pulverize 5.4t of illegal elephant ivory to discourage poachers and wildlife traffickers. This was the latest in a series of actions by the US government, designed to crack down on international poaching and illegal wildlife trafficking.

The international trade of ivory was banned in 1989 under the Convention on International Trade in Endangered Species of Wild Fauna and Flora. During the past 24 years the US government has stockpiled tonnes of confiscated items. The ivory crushing was part of a plan put in place following the signing of an executive order by President Barack Obama in July 2013. The initiative called for a new task force to address the issue of trafficking and allocated \$10M (EUR7.4M) to aid Africa's efforts to beat poaching and the illegal trade of wildlife products, which are putting elephants under increasing danger of extinction.



Parallel Hybrid Impact Crusher from Rockster

Manufacturers of mobile plants are more and more requested to develop technologies to lower fuel consumption, noise, and resources. Rockster has met the challenge, and developed a completely new impact crusher, the R1100DE, which uses the strengths of an electric motor in a hybrid solution.

Originally designed for one of France's largest road construction companies, the new machine is based on Rockster's R1100D impact crusher, known mainly for its robustness and its good performance with high crushing ratio of any material. Augmented with the patented DUPLEX system, users can switch from a jaw to an impact crusher (and vice versa) within a few hours.

The R1100DE's diesel engine operates nearly constantly at optimal speed to drive the generator for the electric motor. The permanent-magnet technology guarantees decrease of energy consumption, better



engine- and generator-performance, and maximum performance density with lower weight smaller components

Any load peaks are cushioned by condensers, also known as "power caps"

that buffer the energy. Fuel consumption is reduced as is maintenance, thanks to the use of virtually maintenance-free electric motors. With this technology users can save as much as 4,227 gallons (16,000 liters) of diesel annually. All electronic components are water cooled and meet the IP65 standard. They are specifically designed for usage in mobile construction machines, and protected from dust, dirt and water. Moreover they are resistant to vibration and extreme temperature fluctuations. The four new variable displacement pumps for the hydraulic system only supply the oil flow, which reduces losses, saves fuel, and ensures a consistently high pumping speed at low or varying diesel engine speed.

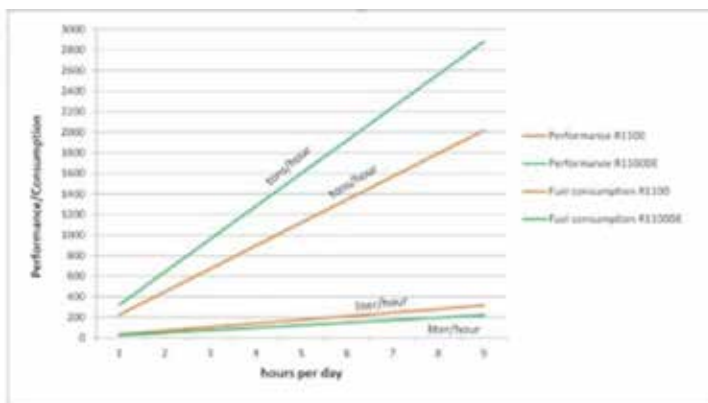
On the newly designed controller-display, machine parameters and settings are intuitive and easy to read. Error messages are designed to help operators quickly determine the source of and solution to failures, increas-

ing the machine's ease of use and efficiency.

A hydraulic overload protection of the swing beams also improves the protection from inappropriate material, and helps avoid oversize material. The R1100DE also marks the first time Rockster's unique return system, consisting of the two-belt return or stockpile conveyor, is installed on one of the company's bigger machines. With this system dismantling for transport is no longer necessary. Users can work with a closed circuit and produce 100 percent definable final grain as well, and use the system as a stockpile conveyor with a discharge height of approximately 13 ft (4 m).

The R1100DE can also be ordered with an optional grid connection to operate the crusher all-electric. Though further savings are possible, the availability of electricity in off-road terrain is not always guaranteed.

www.rockster.at



Genesis Attachments Expands XT Mobile Shear Line to 12 Models

Genesis Attachments announces the availability of GXT 335 and GXT 995 straight and rotator models. With the number of models now at 12, the XT Mobile Shear line fits 13.5 t to 90 t excavators. Shorter in length and height and lighter in weight, the GXT features a center of gravity that is closer to the excavator, enabling models to mount on machines that previously could only carry smaller,

less powerful shears.

The GXT also features an apex—where most cutting is done—that is closer to the back of the jaws, improving material gathering and increasing cutting performance and efficiency while reducing maintenance. Additional GXT models are planned, and the complete line will fit 10 t to 125 t excavators.

www.genesisattachments.com



What is ST115 and what does it mean to the polishing industry?

Andy Bowman is explaining the meaning of the ST-115 and how the electronic device, the T-Meter, makes specifications of polished concrete floors easier and more accurate.

The specification for a polished concrete floor has been determined by polishing up to a certain grit level and attaining a certain gloss level. The main problem is that neither of those two specifications tells you how well the floor has been actually refined. The gloss is easily manipulated by chemicals and a high speed burnisher for example.

Andy Bowman, founder of Adaptive Concrete Innovations, LLC out of Arkansas, USA and the chair of the CSDA (Concrete Sawing and Drilling Association) commission on polished concrete floors, has together with 16 other experts on surface metrology from 4 different countries worked for over a year to put together a quantifiable measurable metric procedure, parameters and standards for measuring the quality of a polished concrete floor. The group's work has been called ST-115. The ST-115 document measures the average roughness of the floor, the Ra, that measurement in turn relates to nine specified Surface Texture Grades (STG). In the following article Andy Bowman explains what ST-115 is and what it means to the polishing industry. Adaptive Concrete Innovations, LLC is has the global rights for the electronic measurement device, the T-Meter, that measures electronically the Ra, the STG and CSP (Concrete Surface Profile) 1-6 for floor preparation.

What is this document and what does it mean to the polishing industry?

Surface finishing is a multidisciplinary activity intended to tailor the properties of the surfaces so that their function and serviceability can be improved. Since polished concrete was born, it was important to have a quantifiable standard for the level of finish that was being produced. The first best practices documents described the process of polishing and broke out the various levels of grinding and began with heavy grit metal bonds that were operated in a wet environment. The refinement process was not only followed by the polishing industry, it was also understood that sequencing steps would need to follow the selected starting grit in order

to have a clean, scratch free finish. The polished floors that were produced with this basic concept provided a consistent finish and a relatively predictable outcome.

When the industry evolved into a completely dry polishing system, as an alternative way to polish concrete, there was a similar progressive sequence of steps that also focused on a high degree of refinement and produced a comparative and predictable finish as the older polishing systems had proven. Many of the early discussions about the quality of finishes was always settled by using a gloss meter. This quantitative measurement would give end users a quantifiable standard to write into a polishing specification and the facility was virtually guaranteed to get two things at once. The first was a highly processed and refined floor and the second was a gloss level that was easy to achieve by selecting a resin bonded abrasive tool that could increase the gloss level if higher progressive grits were ran over the last polishing grit selected.

Over the past six to seven years, end users have been experiencing sustainability issues never previously encountered. Like other construction industry trades, having a competitive advantage is key to winning competitive bids. Many companies are extremely successful at value engineering their process or maximizing efficiencies with innovative attachments and proprietary tools, or simply they just have a more organized labour force. Unfortunately, the construction trades are also represented by contractors that do not focus on turning over a quality project and racing their competition straight to the bottom on price and quality. Unfortunately, the polishing industry is no different. In today's polished concrete world, there is a wide range of systems and equipment and just as many varying types of specially formulated chemicals and abrasives for the polishing industry with only one quantitative standard, the gloss meter. No fault to the gloss meter, some of the topical concrete polishing sealers have the ability to cover heavy metal bond scratches, change the texture from rough to smooth, and even increase the gloss number on projects that were tested with failing readings.

These tricks of the trade have caused end users to spend much more than expected on maintenance systems to keep their floors looking as good as the day they were finished. These floors are not holding their own. Why? Surface refinement has been ignored by processes that endorse skipping progressive steps and not properly chasing the scratch out of the surface. Function and sustainability are the positive attributes of polished concrete and our industry is working hard to provide clear language about the quality of a polished concrete surface beyond its ability to record scattered light with a gloss meter.

The ST-115 Standard

ST115 is a standard for the polishing industry that was adopted by the Concrete Sawing and Drilling Association and explains how to measure texture of a concrete surface using a texture meter. Over the past two years, I had the honour of being the chair of 16 experts in the field of surface metrology, concrete finishing, concrete repair and concrete mix designs representing five major industry associations from ACI, ASTM, ASME, ICRI, and CSDA and representing five continents.

The concrete industry's first standard document for quantifying a concrete surface by accurately reading its texture and assigning the proper designation code or surface texture grade was produced.

This is the first standard of its kind for the concrete industry but not a new standard to other industries. The metal and plastic finishing industries adopted similar standards more than 50 years ago because they experienced the same challenges with interpretation and processing techniques. The standard numerically assigns a texture grading code to the finish so now the design community and end users alike can have a more structured conversation about the quality and sustainability of a polished concrete surface and also determine if steps in the polishing process were skipped or avoided.

The standard covers the possibility of encountering surfaces that contain high amounts of flaw, roll out, voids and how to properly honour these character flaws in the



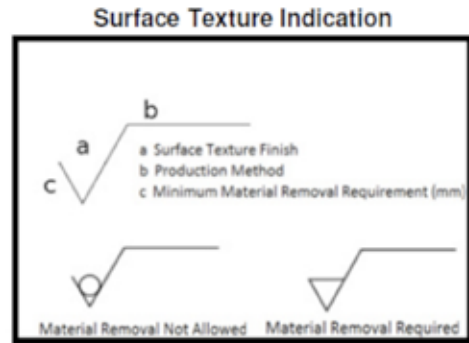
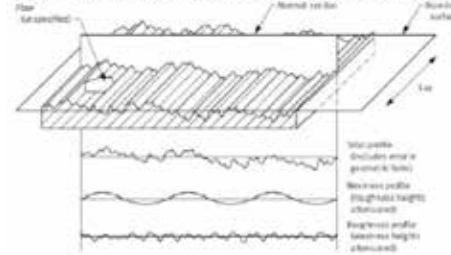
The T-Meter is electronically measuring the Ra, the STG and CSP (Concrete Surface Profile) 1-6 for floor preparation.

surface and get a reliable reading. ST115 also equips the processor of the polished floor system with a valuable device that enables them to monitor the refinement process of a specific tool in a multiple tooling system process and measure the surface of the concrete after its work has been completed. This allows the processor to monitor the quality of abrasives being used from the current supplier and provide the ability to compare similar abrasives made by competi-

tive manufacturers and record the resulting finish grade to potentially assemble the best tool selection procedure for particular equipment or process.

ST115 is a very detailed map of surface measurement that will catch any minor adjustment or deviations from the

Fig. 1-1 Schematic Diagram of Surface Characteristics



Andy Bowman, founder of Adaptive Concrete Innovations and the chair of the CSDA (Concrete Sawing and Drilling Association) commission on polished concrete floors.

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surface. The quantitative surface refinement number is always accurate and does not give results that vary depending on the type of polish guard or sealer that was used. The one thing that will always remain constant and will always remain true about surface finishing is that, any surface that has a high degree of refinement can only produce a bi-product called gloss. It is impossible to have a highly refined floor without gloss. ST115 is not biased, does not take sides, does not allow cheating, and does not favour one polished system over the other, wet or dry, and only reads the real surface.

Used in conjunction with gloss meters and DOI meters, ST115 tells a compelling story about the quality of a finish and changes the current discussions of 'how long is it going to last' to 'how long can it last'. Processes of theory have run their course and the era of not knowing how long a finish is going to last is behind now. Polished concrete is here for good and a cooperative group of industry experts have been assembled and are working to simplify the vocabulary and test methods for everyone to understand it better. Providing more sustainable polished concrete floor systems will be what drives our industry.

Example of a machined surface with character flaw
 Symbols describing finish desired, production method and exposure level required.

Various levels of exposure are explained with codes and definitions.

The standard with the surface texture grade and the corresponding value in micro inches and micro metres.

Comparative analysis chart that shows the ST115 surface texture grade and how average polished concrete floors being produced in the industry compare with gloss readings, DOI and grit level.

Liebherr at Conexpo-Con/Agg

Liebherr will display more than 20 pieces of equipment for multiple industries and job applications. The 50,000 ft² (4,600 m²) Liebherr booth provides room for three hydraulic excavators, three wheel loaders, three crawler loaders and tractors, one deep foundation machine, two material handlers, two tower cranes, and six mobile and crawler cranes, as well as one concrete pump.

R 956 Crawler Excavator – a new development in the 50 t class

The new R 956 standard hydraulic excavator weighs approximately 122,100 lb (55,400 kg) and replaces the previous R 954 model. The R 956 is equipped with a Liebherr 6-cylinder diesel engine with common rail fuel injection. The Tier 4/ Stage IIIB-compliant engine includes an external exhaust gas recirculation system and a diesel particulate filter with active regeneration. The steelwork for the new R 956's uppercarriage has been optimized for extended service life. A wide variety of undercarriages are available to suit any application. The LC is the typical undercarriage for earthmoving applications, while two heavy-duty undercarriages—HD and S-HD—are also available for quarry applications.

PR 736 Dozer to be introduced to the U.S. Market

With a service weight of 44,000 lb to 55,115 lb (20,000 kg to 25,000 kg), the PR 736 dozer is the first model in the new Generation 6 series. Priorities in its development were measures to increase efficiency and to reduce fuel consumption and CO₂ emissions. Among the innovations on the Generation 6 models are electronic travel speed regulation with an integral eco-function, and proactive power control.

To simplify the use of automatic machine control systems, Liebherr can supply its Generation 6 crawler tractors and loaders with factory preparation kits for leading manufacturers control systems. The modern design of the new Generation



6 crawler tractors provides the driver with a good all-round view of the terrain and the machine's working attachments. The operator cab is a completely new design with ergonomically located controls. The seat can be optimally positioned to suit the operator's preferences.

Newest Generation of Material Handlers—LH 40 M and LH 60 C

The Liebherr LH 40 M and LH 60 C handling machines combine comfort, performance, and reliability to provide customers greater efficiency and low operating costs. They deliver a new level of economy as the result of their high load capacities and superior reach. Specially developed for material handling, both machines also comply with the requirements of Tier 4i/stage IIIB emissions regulations. Both are equipped with the Liebherr Energy Recovery System as standard. The additional hydraulic cylinder helps to increase handling capacity while reducing fuel consumption. The machine features Liebherr Power Efficiency system, which optimizes the interaction between the drive components. This results in increased efficiency and optimized power output.

IROCK To Unveil Portable Crusher at Conexpo-Con/Agg

IROCK Crushers will announce the upcoming release of a new portable crusher at Booth 52972 at CONEXPO-CON/AGG in Las Vegas. The new unit features innovative technology and is built for greater production. In addition to the new technology, the crusher will incorporate IROCK's exclusive ROCK BOX, heavy-duty

SmicoSymons Unveils 1st Hydraulic Opening and Closing Clamp Rail System For Screens At Conexpo-Con/Agg

SmicoSymons Vibratory Screens, in collaboration with patent owner Advanced Screening Technologies, Inc., will exhibit the screening industry's first hydraulically-operated opening and closing clamp rail system for fast change outs of worn or broken tensioned screen media on one or more decks simultaneously at CONEXPO-CON/AGG 2014 in the Platinum Lot, Booth 90710.

With a push of one or more buttons, clamp rails on selected decks or all decks will hydraulically open. Once replacement media is in place, one or more buttons will close and tighten the clamp rails to the specified distance from screen box walls until they achieve the proper even tension. This breakthrough technology reduces costly downtime to change out worn screens from an average of 8 to 12 hours on common size triple-deck screens to 3 to 4 hours. And because change outs require far fewer hours, producers can capitalize on more product flexibility from the same screen boxes.

CEMCO Inc.'s Turbo 80 VSI Crusher Produces Consistent Material Economically and Efficiently

CEMCO, Inc.'s Turbo 80 VSI Crusher, an efficient, highly productive vertical shaft impact crusher capable of processing a variety of aggregate materials and industrial minerals, will be featured at booth 53184 at CONEXPO-CON/AGG 2014 in Las Vegas. Available in two models, the Turbo 80 offers a mid-sized option powerful enough to process materials up to 4 in (102 mm) wide into a uniform, cubical, crushed, high quality product. Fully customizable, from internal components to portable or stationary configuration, the Turbo 80 is ideal for multiple industries including aggregates, energy production, mining, and recycling.

The standard Turbo 80 features a single-drive motor with input horsepower capabilities up to 400. A compact yet powerful option, this model weighs in at 9.5 t, and is able to produce throughputs up to 275 t/hour.

components, and exceptional standard features.

Formed in 1992, IROCK is a leading manufacturer of portable crushing plants, screening equipment, and other related products. IROCK is committed to bringing the most productive, innovative and durable equipment to its customers.

KPI-JCI and Astec Mobile Screens Unveils Latest Innovations at CONEXPO-CON/AGG

KPI-JCI and Astec Mobile Screens will unveil its latest innovations at CONEXPO-CON/AGG at Astec Industries' Central Hall Booth 50327.

Six pieces of equipment will be exhibited, including the new-generation SuperStacker™, the Kodiak Plus® K500+ Cone Crusher, the Series 9000 Dewatering Screen, the High Frequency Screen for the Industrial Sands Market, the FT2650 Jaw Crusher with pre-screen option, and the new-generation 3055 Vanguard Jaw Crusher.

The 170 ft (52 m) long SuperStacker™ is the company's latest model of telescoping stackers, which are essential to building a desegregated stockpile and ensuring product quality. By controlling the extension of the stinger conveyor, radial travel, and conveyor incline, a SuperStacker™ will build layered windrows to minimize stockpile segregation. The new generation of SuperStackers™ has replaced the e-chain with the festoon system, providing less maintenance, smoother operation and better reliability. They also feature an enhanced Wizard Touch® automation control system, allowing for more stockpiling options.



Philippi-Hagenbuch, Inc. Highlights HiVol® Water Tanks at CONEXPO-CON/AGG 2014

Philippi-Hagenbuch, Inc. (PHIL), will feature its line of patented HiVol® Water Tanks at booth 10610 at CONEXPO-CON/AGG 2014 in Las Vegas. Specifically developed with a safety focus, HiVol Water Tanks provide a unique design that optimizes capacity and enhances travel safety. Built for any make or model of off-highway truck, the HiVol water tank series serves as an ideal solution for a multitude of applications, including dust suppression, fire protection, road construction, and wash down.



A big shot in surface preparation

Blastrac is a major force in shot blasting and surface preparation equipment. For over a hundred years the company has built a reputation as innovators in surface preparation. Andrei Bushmarin reports.

The technique of abrasive blasting may have different variations, such as bead, sand, or shot blasting. But the main principle remains the same. Pressurized air or a centrifugal wheel propels the material against a surface to be roughened, smoothed, shaped, or cleaned. The method was first patented in 1870 by Benjamin Chew Tilghman, an American army officer, inventor, and entrepreneur. It was natural that the U.S. became the cradle of the blasting industry, and it was in North America that Blastrac originated over a century ago.

The rule of wheel

The parent firm Blastrac would later grow out of the original operation founded in Pittsburgh, Pa., in 1908 under the name of Homogeneous Sand Mixing Machine Company. As it supplied equipment for foundries, it was soon rebranded to American Foundry Equipment Company. Until the early 1930s its development was relatively unspectacular. But in 1932, Louis Peik, a company engineer, patented his first blasting machine called Tumblast. Hot on its heels was the Wheelabrator, a groundbreaking innovation in stationary shot blasting, which debuted at the Chicago world trade fair in 1933. The machine's key element was a centrifugal force blast wheel, hence the name Wheelabrator. The invention proved so popular that by 1943, a mere 10 years after its launch, more than 2,000 units were running all over the world. The company acknowledged the success of the brand by renaming itself again to American Wheelabrator and Equipment.

Blastrac blasts off

In the late 1970s, the company began looking into the concept of mobile shot blasting. A special division was formed, which set about developing portable shot blasters. The first machine was delivered in the early 1980s. Shortly after that, the mobile department was spun off of the parent company under the name of Blastrac, with production facilities in the UK. Portable blasters enjoyed instant success, allowing Blastrac to begin expanding into other markets.

The first European sales and service office was opened



Blastrac's range of grinding and polishing machines.



The complete assortment of Blastrac machines.

in 1982 in Germany. It was followed on by similar organizations in France and Spain. In 2004, production was moved to Nieuwegein, a small town near Utrecht. Just two years later, Blastrac opened a new factory in Poland. Equipped with the latest laser-cutting stations, bending presses, and welding robots, it became Blastrac's flagship production unit, where more 80 percent of parts and components for surface preparation machinery are made. All pre-fabricated parts are shipped to Nieuwegein for quality check and final assembly. Within the last four years, Blastrac has also succeeded in branching out to the Middle East, Ukraine, and Italy.

Surface treatment solutions for every application

Although shot blasting remains Blastrac's core business, it builds a comprehensive range of surface preparation machinery, including bespoke models. Being one of the pioneers of the steel blasting technique, a special offshoot of shot blasting, Blastrac designs steel blasters for horizontal and vertical applications. Originally developed for the petrochemical industry, steel blasting allows the cleaning of various steel structures, such as ship hulls, oil platforms, steel tanks, and vessels quickly and efficiently. Blastrac's floor grinding products range from hand-held to walk-behind models. Single- and triple-head grinders come complete with the patented quick release system. For the removal of road markings and various coatings, Blastrac offers a choice of scarifying and stripping machines. But what really stands out are its large truck-mounted shot blasters. Fitted with different attachments, these machines are capable of treating large areas of road surfaces within very short times, while Blastrac in-house dust collectors ensure that the surface preparation process is dust-free. A full range of diamond tooling, which the company markets under the brand name Diamag completes Blastrac's product offerings. To educate dealers and end users about surface preparation and to give them practical training in the five main techniques, Blastrac has set up training centers all over the world.

The French job

With 205 employees working in the Dutch headquarters and 22 overseas subsidiaries, Blastrac is one of the major international players in surface preparation. It has established a strong presence in North America, Europe, Asia, and the Middle East. Blastrac machinery is currently used on construction sites, roads, and airport runways in more than 100 countries.



Blastrac's range of shotblasting equipment.



Blastrac's range of dust collectors.



State-of-the-art manufacturing technology.

Blastrac has an innovative surface treatment technique called bush hammering. The process enables users to achieve a natural cut stone look on concrete surfaces. The bush hammered concrete is usually used as a decorative application on outdoor areas with anti-skid surfaces such as swimming pools, terraces, garden paths, and pedestrian areas. This technique is also recommended for every smooth surface to be converted to anti-skid. Multiple small hammers impact the surface, hammering out new angular edges with exposed aggregates. The degree of texture can be varied to give a fine, medium, or rough appearance. Bush hammering is usually a two-person operation, with one worker running the machine and the other operating the dust collector equipped with a LongoPack.

www.blastrac.nl

Germany in the Lead, With Brazil the Rookie

2013 was a transitional year for the global concrete cutting industry and many in the industry wonder if 2014 will be the same. At the last meeting of the International Association of Concrete Drillers and Sawers (IACDS) in the spring of 2013, individual country reports were just as popular and interesting element as ever. The reports gives a rather good grip of the status of the global concrete sawing and drilling industry. Jan Hermandsson reports.

The U.S. concrete sawing and drilling association executive director Pat O'Brien reported that the market has been rather quiet during the first quarter of 2013, but the full year is expected to be similar to 2012. The U.S. association has 476 members, approximately 322 of which are concrete cutters. There are close to 2,000 concrete cutters in the whole country.

Many Canadian concrete cutting firms are members of the US association, as they do not have their own any association. Canada has about 30 members and there are some 300 firms in the whole country. The U.S. association has close cooperation with several other branch associations, such as the demolition association.

Largest association in the world

In Europe, the German association's Thomas Springer reported that they have 710 members, 637 of which are contractors. There are about 1,200 concrete cutters in Germany, and their individual average annual revenue is about US\$534,000. This means that Germany continues to be the world's largest concrete sawing and drilling association.

Donat Fritsch from Switzerland reported that the situation in Switzerland is very good. The construction sector is booming and the currency is strong. The association has 84 members. About 10 to 12 fully trained cutters leave the apprenticeship program every year organized by the association.

Verner Havlena from Austria reported that the Austrian market has grown by about 10 percent since the last meeting, to an average revenue of US\$670,000 per individual contractor. There are 36 members in the association, and about 140 concrete cutters in the country.

The new IACDS member, Russia, reported that the average turnover for a concrete cutter is about US\$457,000 a year. The association has its own training program for workers and company owners. The Russian association has its own tolerance rules, but is also using the norms set up IACDS. The market situation is good and stable and predicted to stay that way



for the near future.

Joel Vinsant from the U.K. sawing and drilling association said his country's market has started to pick up in the last two months. The U.K. construction economy is a roller coaster, but many of the large projects that have been postponed are now going to start. The association has 77 members but there are about 250 concrete cutters throughout the UK and average revenue is about US\$686,000 a year. Vinsant also said that next year the association would celebrate its 30th anniversary.

Every year, the U.K. association sponsors "The Concrete Show," attracting some 4,500 visitors. The association also has its own training program, and a dedicated training area focused on health and safety. Nearly 150 apprentices have passed the program, and another 56 are near to completing their apprenticeships. All apprentices who receive a own license and diploma. The program has become quite powerful as the majority of contractors only hire licensed concrete cutters.

Spain close to zero in 2013 and might get even worse in 2014

For Spain, José Blanco reports, that the market is close to zero. The construction industry in total is estimated to be 10 percent of what it was in 2008. In 2014, many think it will be even worse. The number of member companies in the association has dropped from 80 to only 10.

Norikazu Shibuya from the Japanese association reported that government continues to support concrete sawing and drilling companies in helping rebuild areas of the country damaged by the 2012 tsunami. Shibuya says that the association has about 90 members, but there are around 1,000 concrete cutting firms in the country. The average annual revenue is US\$915,000. Shibuya took 14 concrete cutters to Bauma and the

IACDS meeting. He also mentioned that neighboring Korea has an estimated 700 concrete sawing and drilling firms, but no association.

Huge potential in Brazil

Central and South America are among the other regions that show a growth in activity in concrete sawing and drilling and concrete floor grinding and polishing. The market with the greatest potential is Brazil, which reports a steady growth in the number of contractors. The size of the market is difficult to estimate, as there is no local association. Brazil's construction federation does not have a special section dealing with concrete sawing and drilling and demolition.

Still, Brazil's rental association Associação Locadoras Equipamentos de construção has been active. The concrete cutting contractor Gilberto Giasetti was a past president of ALEC and tried in 2000 to gather statistics on the Brazilian concrete sawing and drilling industry, but without success. However, Giasetti said that when he was active in ALEC there were about 80 members of rental companies. About 20 of these also offered concrete sawing and drilling and demolition services.

Brazil is quite similar to for instance Russia where rental companies offer specialized services. Giasetti says that ALEC currently has about 200 members and he believes that a large number of these also offer demolition and concrete cutting services. Today, Brazil is steadily building up a group of specialized contractors, estimated to be about 200, working with concrete sawing and drilling and controlled demolition. Brazil has huge potential and is expected to achieve rapid growth in the near future. As the strongest market in South America, Brazil will show the way for other neighboring countries like Argentina, Chile, Bolivia, Colombia and Mexico.

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Slip-and-Fall Effects Prevention

A concrete cutting or concrete flooring contractor can be held responsible for a slip-and-fall accident in case it is proved that the polished concrete floor he has carried out has a latent defect. In the U.S., this situation can have devastating effect for the contractor. But there are measurements that can support and defend the contractor from these risks.

Polished concrete floors are becoming more and more popular around the world. Old floors are being leveled and polished to a super shiny surface. New concrete floors are specified with exclusive aggregate and in different colors. The benefits with using concrete flooring instead of epoxy, stone, marble, or other materials is that it is much more cost-efficient, it will last for maybe 25 years, and the maintenance is easy and inexpensive. But as with all products there are good and bad sides. When it comes to polished concrete floors the slip-and-fall risk is rather high and something that should be prevented in an early stage by the contractor.

50 % of the slip-and-fall accidents caused by the flooring

Thousands of hospital admissions and even many deaths in the U.S. result each year from slip-and-fall accidents. One of every three adults over age 65 goes to the hospital because of a slip-and-fall accident and they never return home after their hospital visit. They either go to assisted living, nursing home or get to live with their children. Some 85 percent of the workers comp claims, and 51 percent of all general liability claims comes from slip-and-fall accidents, adding up to an cost of US\$ 70 Billion. In other words, slip-and-fall costs a lot of money, and a lot of suffering among victims.

The U.S. National Floor Safety Institute estimates that 50 percent of slip-and-fall accidents are caused by the flooring, 24 percent by the footwear. Nevertheless, a contractor involved in a slip-and-fall accident due to that the polished concrete floor he provided may be found economically liable, sometimes forcing him to go out of business. A slip-and-fall accident that has lead to a lawsuit is usually a time-consuming and intense struggle between lawyers, resulting in large settlements.

Measure risk

There currently several new devices and standards that can help contractors to defend themselves in case they should end up in a lawsuit due to a slip-and-fall accident on a polished concrete floor made by the same contractor. At last year's International Concrete Polishing and

Staining Conference, for example, Peter Ermish, CEO of Variosystems, an electronics service company, presented a device the BOT, or Binary Output Tribometer, and a standard to measure the risk level for slipping and falling on a polished concrete floor.

More information about these devices and standards are available from the Concrete Polishing University, www.concretepolishinguniversity365.com.

www.concretepolishinguniversity365.com.

Contractors may also wish to consult, SlipAlert, a worldwide company that can provide assistance in understanding slip-and-fall hazards. They can help with slip prevention, slip testing, and what devices and standards you can use as a contractor. More information may be found on www.slipalert.com.



Aquajet Provides Solution in Holland

An existing elevated rail deck in Holland presented demolition problems for the contractor BAM Civiel, as it prepared to join the structure to a new twin rail track concrete deck.

Built about 20 years ago in preparation for future expansion, the reinforced concrete deck, above the A10 highway through the southern suburbs of Amsterdam included two post-tensioned cables. After removing a balustrade wall at one end of the deck with a concrete wire saw, it was necessary to remove the deck concrete to expose the rebar for attaching the new adjoining deck. However, a bigger problem was exposing the post-tensioned cables for inspection and recasing in new concrete without damaging the components. Specialty contractor Aqua Demolition Services provided the solution with hydrodemolition using two Aquajet Systems Aqua Cutter 710V evolution robots.

"Without using the Aqua Cutters, possibly the only other solution would have been to use hand lances taking eight to ten operators at least two weeks to clear all the specified concrete safely," says ADS director Arjan de Waard. "Aquajet's hydrodemolition technique allowed us to complete the job inside one and a half days, including set up times."

Eased the demolition and improved efficiency

The first post-tensioned cable was located 2 in (50 mm) below the surface of the 39x88.5 ft (12x27 m) concrete deck. The post-tensioned cables, comprising 12 bundles and totaling 5.5 in (140 mm) in diameter, were exposed.

"We were extremely worried about

initially removing the concrete as the client, the rail authority O.V. Saal, had specified there must be no damage to the steel cables," says Bam Civiel project manager Leen van Anrooij. "Those fears proved unwarranted, as the Aqua Cutters removed all the concrete cleanly, and left the steel cables totally exposed and undamaged."

A second, similarly sized post-tensioned cable was also located about 23.5 in (600 mm) below the first one. Access was close to the elevated deck's columns and beam above the pile cap. Once again, the client specified no damage to the beam behind the contoured deck.

"We opted to tackle this problem by using a second Aqua Cutter 710V evolution robot installed with a 23 ft [7m] vertical mast," said ADS chief executive officer Hans 't Geloof.

"Not only did it ease the demolition process from the front of the 3 ft (900 mm) deep deck, it also allowed us to progress at a fast rate and without damaging the beam wall."

Joining the bridge decks is part of Bam Civiel's contract for a 4.3 mi (7 km) section of the new proposed 11.5 mi (18.5km) link from Amsterdam South to Duivendrecht. The project entails laying twin rail tracks at grade and on seven new elevated bridges alongside the existing rail network. It also

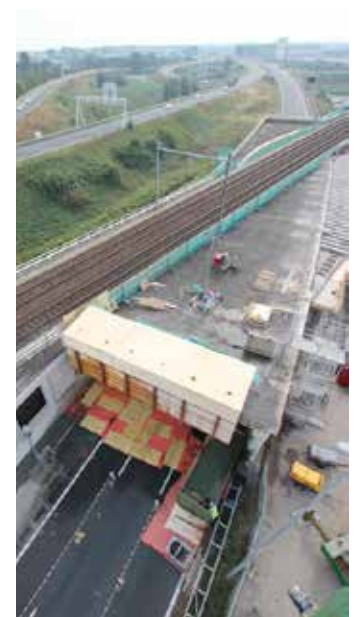


includes a station extension at Rai.

The new line is intended to form a vital link in public transport plans between Schiphol and Lelystad aimed at doubling

the route's capacity by 2016, and increasing passenger numbers to almost 80,000 per day by 2020.

www.aquajet.se



More Lifting Power in the Amazon



Located in the Amazonian city of Manaus, ENTEC Longhi & Ciat has grown to be one of the region leaders in equipment rental and

load movement. Already owning a variety of Terex® cranes, the company recently added a new 500-ton capacity class AC 500-2 all

terrain crane to handle new projects underway with Petrobras, a Brazilian multinational energy corporation.

With a carrier just 56 feet (17.1m) long, the AC 500-2 is the most compact eight-axle crane in its class. A maximum working height of 478 feet (145.8m) can be achieved with a luffing fly jib. The crane offers enormous power across the full lifting capacity range, thanks to features such as the improved design of the main boom cross-section and the reinforced sideways superlift system. The star-shaped outrigger layout provides excellent stability.

Short setup times and the IC-1 control system's ease of use make for safe crane operations and comfortable working conditions. The crane is powered by the latest engine technology, delivering 653 horsepower (480kW) at 1,800 rpm. The carefully thought-out drive design provides outstanding transfer of engine power, yielding

excellent performance on both the highway and the jobsite.

The AC 500-2 was transported on a ship that sailed non-stop from Antwerp nonstop to Manaus. ENTEC used its Terex AC 350/6 and AC 200-1 all terrain cranes to unload the AC 500-2. With a total weight of 96 tons, including boom and a required radius of 11m, the tandem lift was well within the cranes' capacity and the whole process was completed successfully within schedule.

The new AC 500-2 is now at work building and installing thermoelectric power plants in the north of Brazil.

"We are very happy with our Terex all-terrain cranes," explains Reinaldo Longhi, Commercial Director from ENTEC. "So when we wanted to expand our fleet, both in number and capacity, the decision came naturally. Our new Terex will allow ENTEC to maintain its leadership in the Amazon region."

JRB Recycle Buckets Offer Multiple Options To Push, Transport, and Process Recycle Debris

JRB recycle buckets by Paladin Attachments include the powerful JRB Refuse/Transfer Bucket, and the versatile JRB Grapple Bucket. Both are engineered to increase wheel loader productivity in a wide variety of recycling, landfill, and transfer station applications. To maintain maximum efficiency, high-wear areas have drilled—instead of welded—width and edge hole patterns that are designed to fit standard OEM wear parts. JRB recycle buckets

may be used as a pin-on attachment or with JRB's Quick Coupler System.

The JRB Refuse/Transfer Bucket comes in two profile style designs—a pushing style to move debris, and a loading style with a deeper pocket to pick up debris and easily dump it where needed. A heavy-duty tubular visibility spill guard is located near the top of the bucket so operators can see when the load is reaching maximum capacity. This makes it easy to see the material being moved or scooped for precise bucket filling and optimal productivity. The bucket's base is constructed of a minimum 50-yield steel, while all wear areas are made from a minimum Burnell hardness of 400. The JRB Refuse/Transfer Bucket is available in five wheel loader size ranges with capacities from 4 to 10 cubic yards (3 to 7.6 m³).

The JRB Grapple Bucket is available in a full-side design to move small and fine material, a half-side design that is lighter in weight and can handle



medium-size material, and a cutaway design to move larger debris. Each design has two separate grapple arms that can be independently moved by dual hydraulic cylinders, allowing for better control and versatility when clamping uneven loads.

An optional screen guard can also be used when maximum material retention is crucial or when transporting small and fine material. The JRB Grapple Bucket is available in seven wheel loader size ranges with capacities from 1 to 8 cubic yards (.7 to 6.1 m³).



New generation of wheel loaders from Liebherr

The new generation of Liebherr wheel loaders were presented at the recent World of Concrete show in Las Vegas. The L 556 model displayed belongs to the large-size range of Liebherr wheel loaders and complies with Tier 4i / stage IIIB emission standards. These new generation machines have an optimized tipping load that further improves productivity and stability. The L 556 with Z-bar linkage for standard operations has a tipping load of 13.55t at an operating weight of 17.9t. The machine is equipped with a 3.6m³ bucket and is driven by a 140 kW Liebherr 4-cylinder diesel engine. The engine compartment on the L 556 has been redesigned so that the engine is installed transversely, which is a unique configuration in this class. This gives the machine an even more compact layout, and makes all of the principal maintenance points accessible from ground level.

The panoramic windshield makes for excellent all-round visibility.

For the Tier 4i / stage IIIB generation, Liebherr continues to use the hydrostatic drive concept together with the Liebherr power efficiency electronic control system that increases the machine's handling power and keeps fuel consumption to a minimum. The new generation diesel engines are now even more environmentally friendly, with many other improvements, including common rail fuel injection to optimize the combustion process and reduce CO₂ emissions. Exhaust emission control is by means of a diesel oxidation catalytic converter combined with a diesel particulate filter. In most situations, this filter can be regenerated by burning off deposits during operation of the machine, and the task in hand continued without interruption.

www.liebherr.us

Deep Drilling with the Pentrunder System



Rockster technology for asphalt recycling

Tests of various machines carried out by different customers showed that technology from the Austrian company Korman Rockster Recycler is ideally suited for recycling of old asphalt.

One Austrian company operating asphalt mixing plants provided Rockster with interesting and useful results. Even with the addition of only 10% recycled asphalt the return on investment of a mobile Rockster R900 Impact crusher with screen box RS86 and return belt RB75 would be at a little over half a year. With most mixing systems, it is possible to add up to 25% of recycled asphalt, whereby the return would theoretically be less than four months. Similarly, the savings for bitumen are calculated. So from this costly material 1,200t can be saved in the same period by using 25% recycled asphalt. Rockster claims its technology is a good choice for recycling asphalt due to the following:

- Rockster's two swing beam system allows independent adjustment of the swing beams.
- Exact adjustment of the crushing gap is possible to specify the final grain size and reach a simple modification of the grading curve.
- The oversized rotor diameter causes an increase of the impact power and a more efficient crushing process.
- The hydrostatic drive allows an infinite adjustment of the rotor speed and, therefore, an easily controlled screening curve. Another advantage of the hydrostatic drive is, that no wear costs emerge, and the direction of rotation can be changed.

Most of these points are unique features of Rockster and ensure excellent performance with the best final grain quality. It is therefore possible to achieve any desired screening curve by simple adjustments to the crusher. This is a fact that plays a big role in the asphalt recycling industry because there are exact guidelines for the screening curve when using recycled material for the production of new asphalt. Just what in the asphalt recycling plays a big role, as in the production of new asphalt, complying with the guidelines of the grading curve of recycled material is very important.

Rockster Job stories

Trummer Maschinenhandel and Aufbereitung is an asphalt recycling specialist with impact crusher R1100 with screen box and a Rockster customer for about six years.

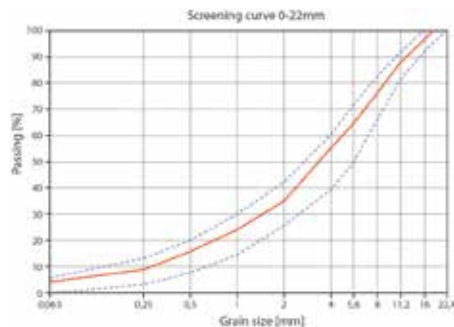
The Pentrunder MDU is a core drill for special jobs. With its wide spindle speed range, the Pentrunder MDU core drill is suitable for both small and big diameter drill bits.

The stability of the drill rig and spindle bearings, paired with high power and the right peripheral speed also makes it suitable for dry drilling deep holes. One example is a recent job in Romania where the company Carotare Beton did a job in the Ilie Gorgane Church in Bucharest. The church, which is over 300 years old, needed reinforcing and a large number of holes were drilled. As the inner walls are covered with valuable paintings, water could not be used. With the MDU, Carotare Beton achieved 30-40m/day and with another core drill of high power only 12m/day was achieved.

On another project in Gothenburg, Sweden, 82mm diameter holes were drilled to 7m and 62mm diameter holes to 5m deep. A total of 130m of drilling was completed with the Pentrunder MDU core drill by the company King Concrete for foundations for the

new roller coaster Helix at the Liseberg amusement park. Most of the drilling was through rock and was completed on time.

www.pentrunder.com



"For asphalt crushed to 0-32 mm I reach a performance of almost 200t/h with my impact crusher R1100, which is an extremely good value from experience with other crushers," said Trummer chief executive officer Martin Trummer. "I have been used the R1100 for four years and it is still in top form. You can always see further development of Rockster's products. We constantly notice technological progress, which I find remarkable. You can see that customer requests and suggestions for improvement from experiences in the field are implemented quickly."

Arge Recycling from Vorarlberg, Austria, uses a Rockster impact crusher R900 with screen box and return belt for treatment of RAP. Environmental awareness and resource conservation have a great significance in the company and thus they have specialised in the recycling of asphalt and construction debris. "The first argument for purchasing a Rockster crushing plant was the outstanding performance," said Arge operations manager Simon Nicolussi. "With the combination of screen box and return belt, we can produce high quality final grain at 0% oversize, which can be sold very well. The compact transport measures of the R900 were another important factor, as we do not only crush at our company site, but also at our customers' places. Also the customer service of Rockster has convinced us from the beginning, we felt that we were cooperating with a competent and reliable team."



www.rockster.at

BrokkStarr: Advocating for the Brokk Revolution

It was a chance encounter when Mike Peschka came across a Brokk demolition machine in 1992. It wasn't even on his radar, but hand, back and other serious injuries were. When he drove past a jobsite in El Paso, Texas, and saw a Brokk machine in use, he knew it was a piece of equipment he had to have.

Peschka owns POEM Service Corp. in Anthony, N.M., a 22-year-old company that demolishes refractory linings in large furnaces. POEM does most of its work in industrial plants that manufacture products such as cement, paper and copper. The furnaces can reach up to 3,000° F (1,649° C) and require many days to cool down before crews can enter. Even then, it's still very warm and uncomfortable for workers, and the dust raised during demolition can be hazardous. Prior to 1992, POEM used the tools common to the industry at the time—hand-held jackhammers. They are notorious for causing injuries like hand, arm, and back strain, as well as carpal tunnel syndrome and nerve damage. And in furnaces, where operators need to hold the jackhammers horizontally and above their heads, the risk of injury is even greater. All the while, workers are exposed to high heat and noise levels, dust and overhead hazards.

Following that pivotal 1992 drive, Peschka purchased his first Brokk machine, a 250, and began using it to demolish refractory materials in copper furnaces. Because the Brokk machine could reach into the furnaces from the outside, crews often could start projects before the furnaces were completely cooled, allowing them to finish work faster. And while operators get tired when using jackhammers for several hours or at awkward

angles, the Brokk machine didn't fatigue; it worked just as hard at midnight as it did at 8:00 am. That meant POEM could complete projects faster still. Peschka also saw a substantial decrease in injuries as the Brokk machine replaced the large amount of labor required to perform the work by hand.

"The customers were very pleased with the faster turnaround times and I was happy we could minimize employee exposure to those harsh environments," he says.

It was enough to convince Peschka to purchase another Brokk unit, the 100. Over the years he has added several other models, including a 90 and a few 150s, 180s and 250s.

"The Brokk machines have had a significant impact on our business," he says. "There was a time when accidents were just considered part of the job. With the Brokk machines, we've changed that attitude and dramatically reduced injuries, and our workers' compensation premiums have gone down 75 percent."

Using Brokk demolition machines has become a way of life for POEM, which has retired its jackhammers in favor of Brokk equipment. POEM also supports others who are making the same changes in their businesses by offering operator training for Brokk machines. Owners also can take their machines to POEM for repairs or maintenance. Change requires guts, passion, drive, and a strong advocate to lead the way, and Peschka has become that advocate. His dedication to revolutionizing his business into a company that uses Brokk machines exclusively, and to supporting others doing the same, are what make him a Brokk Star.



CP expands RX line of heavy breakers



Chicago Pneumatic has introduced five new models to its RX line of heavy breakers—the RX26, RX30, RX38, RX46, and RX 54. Ranging in weight from 1.8 t to 4.2 t, they fit 20 t to 70 t carriers. The standout feature of the new RX breakers is the power control-plus valve, a combined stroke length and start-up mode switching valve that operators can change in the field without opening the hydraulic circuit. The valve enables breaker operators to choose between two different operation modes to optimize productivity for different applications.

The first mode is PowerStop Plus, which allows operators to switch the breaker to high impact energy with normal impact rate. In this mode, the breaker starts only when the working tool is depressed, and is recommended when working on solid ground, large rocks, hard concrete, and trenching. The second mode, EasyPower Plus, allows operators to switch to high impact rate with normal impact energy. In this mode, the breaker starts even when the working tool is not depressed, and is recommended when working in unstable ground, small rocks, and thin concrete surfaces, and when working in horizontal or overhead positions.

Common to all RX breakers is the power boost feature, designed to achieve greater breaking performance in tough applications without requiring additional hydraulic input. The enhanced percussive performance is achieved by reusing the recoil energy. As with all breakers in the RX series, the new line-up features the energy efficient gas/oil hybrid technology, and an internal control valve for increased efficiency.

www.cp.com

Demolition Safety Manual Updated to Reflect Industry Changes

At a time of increased public interest in the issue of demolition worksite safety, the National Demolition Association has released the newest edition of its highly regarded Demolition Safety Manual, viewed by industry leaders as the final word in safety work practices, according to its executive director.

"Our Demolition Safety Manual is used by professionals around the world and is the cornerstone of the NDA's extensive demolition safety program," said Michael R. Taylor, CAE, noting that it has been translated into many languages. "We work closely with OSHA, which helps fund the manual's development, to correlate the recommended practices it contains with OSHA Construction Standard 29 CFR 1926 and numerous accepted environmental regulations."

The latest revision of the manual enables demolition contracting firms, and any other organization involved in the demolition process, to manage their own company-specific safety programs and promote a culture of safety within their organization. The new content has been studied and recommended by the NDA's Safety Committee and other industry safety leaders. Among the more noteworthy improvements is updated information on the safe handling of various hazardous materials found on some demolition sites, as well as valuable information on such topics as quick coupler safety and the safe use of high-reach long boom arms. In addition, the latest edition of the Demolition Safety Manual is more easily searchable from desktop computers and mobile devices. The manual will soon be available in a searchable format online at the NDA's website. Offered free to NDA members, the new and improved Demolition Safety Manual can also be purchased online at the NDA Store on the website. It joins the newly "harmonized" Hazard Communication Program and the Demolition Safety Talks program, a jobsite toolbox safety meeting resource, as the foundation of any company's demolition safety management program, also available at the online NDA Store.

DEMOLITION SAFETY MANUAL

NATIONAL DEMOLITION ASSOCIATION



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What US customers say about Rockster



„Our Rockster crusher R1200/1100 Duplex (jaw and impact with one machine) has been a wonderful addition to our company. We utilize it mainly as impact crusher in the production of recycled asphalt pavement for use as base course material for rebuilding the road. We have even used the crusher with the interchangeable jaw in our quarry in Colchester, producing sub base gravel. We bought the machine after Conexpo 2011 and it has worked fabulously ever since. It is in production 10-12 hours a day 6 days a week for about 7-8 months a year.“

Frank Tyler Whitcomb
Frank W. Whitcomb Construction Corp.
Colchester (VT)

„The fact that the Rockster crusher R800/900 can be switched from Jaw to Impactor made it an easy decision. The unique design of the duplex system allows us to get maximum utilization of the machine, as it can be used in various application from virgin stone to recycled asphalt and concrete. Three years and almost 4000 hours later the machine continues to perform and shock our customers with its production and material quality despite its compact size.“

Joe Collazo
Equip Sales & Leasing Corp., North Haven (CT)





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