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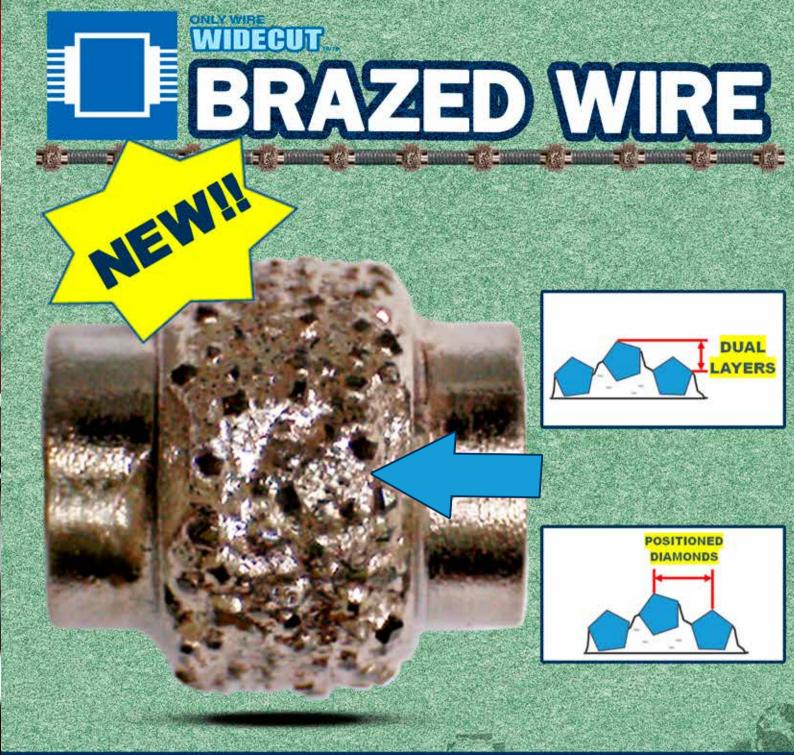
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EDITORIAL STAFF

Editor-in-Chief

Assisting Editor-in-Chief
Anita do Rocio Hermansson

mikael.karlsson@pdworld.com

Editor North & Central America Jim Parsons, jim.parsons@pdworld.com

Editor South America Luiz Carlos Beraldo, Iuizcarlosberaldo@gmail.com

Editor Recycling: Heikki Harri, heikki.harri@pp1.inet.fi

Editor Asia Pacific: Barbara Grace,

Editor Russia & Eastern Europe

Editor Africa Kevin Mayhew, kevinm@addixion.co.za

SALES OFFICES

International Sales Director /BeneLux/Finland/France/Spain/Portugal and Italy Phone: +7 921 949 27 81

Sweden, Norway & Denmark

North & South America, UK & Ireland

Dunay Associates
P.O. Box 119, Westwood, NJ 07675, USA
Phone: +1 201 781 6133, Fax: +1 201 664 1829 E-Mail: darren.dunay@pdworld.com

Australia/New Zealand/Asia Pacific/Korea/Japan and rest of the world:





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PD*i* iacds

Unfortunate delays to PDi

Dear readers

During the autumn a couple of issues of PDi were delayed, with issue 4 completely missing its schedule. Issue 6 will be distributed as normal at the beginning of next year to coincide with the exhibition World of Concrete in February.

I am very sorry for the delays, which were out of our control. I know excuses will not change the fact the issues were delayed, but there is an explanation. As some of you might know SCOP, which publishes PDi, also organised the trade show DEMCON held in Sweden in early September. Planning and implementing the show occupies almost all our time for a period before and after the show. Normally we cope but the week before the show SCOP had a major break-in and several computers, screens and other office equipment were stolen, and the entrance door completely demolished. Luckily all data was backed up. But the incident caused serious delays while purchasing new equipment and reinstalling everything.

With a tight schedule, even before the burglary, it proved impossible to produce and deliver Issue 4 on time. I should not bother you with excuses, but I apologise to all our readers and advertisers for the delays. We have taken steps to ensure delays do not reoccur and have taken on more at PDi. From January Markus Leo will take over the design and layout of the magazine, which will release the existing editorial team to focus on reporting. From next year we will also focus more on in-depth reports about manufacturers and contractors in our industries.

We are also going to publish a new web portal that will be updated regularly, and will allow readers to comment directly on the web and also offer a wide range of banner advertising. Next year we will also send out regular newsletters to readers. We are moving towards a more web-based publication, even though our printed magazine will remain. If you have any queries please do not hesitate to contact me.

I also would like to take this opportunity to thank all our readers and advertisers for their support this year and hope that you continue to read and enjoy PDi. I hope that you all are with us in 2015 and we will do our best to monitor what is going on in our industries. I also would like to invite you to our booth at



the World of Concrete in Las Vegas in February and hope to see you there. As issue 6 will be out in mid January I would like to wish you happy holidays and a happy new year.

Jan Hermansson Editor-in-Chief jan.hermansson@pdworld.com Words from the IACDS President

"Lack of new developments in the East

As 2014 comes to an end it is easy to conclude that the economy did not really succeed this year. The economic recovery in Europe has been slow, which of course affects the construction industry. According to a report from the Euroconstruct Conference, which was recently held in Milan, European investments in the construction sector increased by 1% this year.

European investments within the construction sector have decreased by 22% over a period of time. New building projects have decreased by 38%, since the financial crisis started, and the building of new homes has decreased by 44%. These are average numbers for the countries that have been affected the most, such as Spain, Portugal and Ireland.

A light in the dark is that we have left the most difficult time behind us. Or, can it get worse?

For those who work in the environmental and demolition sectors, which are very labour intensive, we notice that salaries has been a focus during the year. Companies with lower salaries, which affect us hard, often oust us. Our work just gets more and more complicated. On top of this, environmental demands are greater and also the demands for proper training of new employees.

A group of Swedish concrete cutting and demolition contractors visited the bauma China exhibition in Shanghai in November. The trip was a success, new contacts were made and new ideas evolved. The show was enormous with 191,000 visitors from 141 countries. But despite this we did not find any new machines or technical innovations to bring back for use in our industry. Some said that it was a little bit like stepping back 20 years. The machines were big and heavy and needed very strong people to operate them. The lifetime for these machines maybe longer, but I doubt that. I hope that this is not a trend that will also come to the west. We have been used to machines getting smaller, lighter and more efficient and safer.

What I see is that with lower salaries there will not be the same need for development of new machines and systems. Then you can use and keep old less ergonomic, energy-wasting machines and employ more uneducated people that get worn out long before they should. When I visited bauma China my feeling was that the show was lacking the high tech machines and systems that our industries, concrete cutting and demolition, are prioritising.

Lars Sandström, President of IACDS



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Words from the EDA President

Demolition makes recycling possible

The demolition industry is, as is the our industry. So I take this opportunity case with most specialized activities, unknown to the general public.

In our case, the fact that we 'brake, knock down and blow things up' could make the activity a bit more odd and interesting. But our work has for many

I am not going to say that we 'demessage, as it usually has a different meaning for us than it does for the

The European Demolition Association has being very active in Brussels with the European Union and many related institutions to make sure we

Construction and demolition waste means 20-40% of the waste produced in European countries, by weight. Yes it is a rough figure, depending on the year, country, situation of the construction of the total figure.

But our industry does not consider we try our best to handle, segregate and cular economy.

We just found out that the new president of the European Commission, Jean-Claude Juncker, has decided to drop some key legislative proposals, which had being cooking in the EU environment for a while, one being the updating of the waste framework directive and the circular economy package. This means we have to refocus our mes-EU level to emphasize the importance of with you again our key message: 'demo-

Pilar de la Cruz President of the European **Demolition Association**

The EDA was founded in 1978 and is the leading plat-

info@europeandemolition.org www.europeandemolition.org



Pilar de la Cruz, EDA President, VD Voladuras Demoliciones y Desguaces



Chicago Pneumatic appoints distributor in **South Africa**

Chicago Pneumatic has appointed BMI Group as its latest distributor in South Africa. The BMI Group is based in Johannesburg and operates seven sales and services centres located in strategic locations across South Africa. It will have access to the CP portfolio of handheld pneumatic, hydraulic and petroldriven tools alongside compaction equipment, rig-mounted attachments, portable compressors, generators and light towers.

"What ultimately made us decide to partner with Chicago Pneumatic is the tried and tested nature of their equipment, which is ruggedly built and ideally suited for use in tough African working conditions," said BMI Group managing director David Ireland, "This, and the diverse range of competitively priced construction equipment solutions on offer, made us jump at the opportunity to work with Chicago Pneumatic, which we see as a great fit for our customer base."

BMI Group recently took delivery of an order for the first CP1100-21 high pressure, mechanical portable compressor in Africa, which is to be used in a special application on the South African railways., Business Development Manager for Chicago Pneumatic in Southern Africa, commented: "South Africa is a very tough and competitive market, but with BMI's reputation for excellent service, backup and customer support, we managed to secure the order," said CP South Africa business development manager Jacques van der Westhuizen. "It is for this reason that we are pleased to add BMI to Chicago Pneumatic's growing distributor network in South Africa, which we see as an important international market and major potential area for growth."







Dressta appoints vice president

LiuGong Dressta Machinery has appointed Howard Dale as its new vice president of global sales. He joins Dressta with 20 years of construction sales and marketing experience in China and South East Asia and will be responsible for all aspects of Dressta's global business. His previous position was as a Shanghai-based regional director for agricultural and construction equipment manufacturer CNH Industrial. "Howard brings with him the rare combination of proven ability in growing construction brands in different regions, and the technical knowledge born from many years spent in various roles in the industry," said LiuGong Dressta Machinery president Teddy Wu. "We believe Howard will become a vital component in our mission to further grow Dressta's international status." "My vision is to reengineer the Dressta brand and to reengage with the traditional markets, and grow the brand into new markets," said Dale. "I believe that Dressta's ability to match its products to specific applications makes it one of the few customer-first construction equipment manufacturers available today. The machines themselves are absolute powerhouses and I don't think Dressta can be rivalled in the breadth of its products' application offering."

Deutz boosts third quarter revenue

Engine manufacturer Deutz increased revenue by 11.4% to EUR424.5M in the third guarter of 2014 compared to EUR381M in the same period last year. Net income dropped from EUR15.5M to EUR0.7M in the same period. Revenue in the first nine months of 2014 increased by 12.9% to EUR1,177.9M from EUR1043.1M while net income fell from EUR20.9M to EUR3.4M. The company will issue a forecast for 2015 when the full 2014 results will be released in March 2015.

Wacker Neuson remains on growth path

The Wacker Neuson Group increased its third quarter revenue by 14% to EUR316.2M compared with EUR276.3M for the same period in 2013. Profit for the period was up 56.8% from EUR16.9M to EUR26.6M. Group sales for the first nine months of 2014 rose 8.6% to EUR936.2M from EUR862.4M in the same period last year. The Executive Board is forecasting Group revenue for fiscal 2014 between EUR1.25bn and EUR1.30bn.





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CDE expand team in The Gulf

CDE Global has appointed Ruchin Garg as business development manager for The Gulf. He will oversee the development of the CDE project portfolio in Saudi Arabia, UAE, Kuwait, Jordan, Bahrain, Qatar and Oman. Garg was previously involved in the development of the CDE Asia mining business in India.

"Ruchin is a welcome addition to our team as we seek to build on the successes we have enjoyed in recent years, as we help operators in the region to enhance the efficiency and profitability of their operations," said CDE Middle East and Africa regional manager lain Walker. "Our modular product range allows us to meet the demand for rapid deployment and minimum footprint which has grown

significantly in recent years."

CDE design and manufacture a range of modular materials washing equipment with applications in the construction, mining and specialist industrial sands sectors. The company reports a growing demand for its water recycling systems that allow operators to minimise the volumes of fresh water required to feed washing plants. "Almost all of the projects that we sell in The Gulf include some form of water treatment and recycling system," said Walker. "Our AquaCycle thickener allows our customers to benefit from the superior classification performance that washing systems offer while delivering 90% water recycling."





Chicago Pneumatic rolls into Poland

A double-drum hydraulic roller from Chicago Pneumatic is proving to be a powerful ally for a Polish underground pipe work contractor. The walk-behind MR7000EL roller is playing a key role in the restoration of asphalt roads following the replacement and repair of water and sewage pipes in the northeastern city of Suwalki. The contractor, Przedsiebiorstwo Wodociagow i Kanalizacji w Suwalkach, held a competitive tender for supplying compaction equipment before selecting the MR7000EL roller. "The quality of the result is very impressive," said PWKS manager Jan Stefanowicz. "The standard compaction equipment we used previously was not sufficiently powerful for this particular application, but with this new unit the

structure
of the compacted asphalt
is much better, which will
contribute to
the durability
of the road surface. We have also
been impressed by the fuel

e f - ficiency of this roller, which is much better than others we have used. Another advantage is its manoeuvrability and ease of use, both of which are important where fast action is needed in locations with high levels of traffic."

CP's partner in Poland, PHU Chicago, spent almost three months in discussions with the customer. On delivery, PHU Chicago provided the contractor's employees with detailed training on operation, maintenance and safety regulations. "By developing a close working relationship with the contractor we were able to support them throughout the decision-making process and also assist with training and advice after the MR7000EL had been delivered," said PHU Chicago sales representative Michal Ostrowski. "It has been a good example of the partnership approach that we develop when working with customers, in order to ensure an excellent end result." Equipped with stepless forward and backward control, the fully hydraulic MR7000EL is easy to manoeuvre in confined spaces. The MR7000EL is among the most popular products in CP's comprehensive range of compaction equipment.

IronPlanet acquires Kruse Energy and Equipment Auctioneers

IronPlanet, the online marketplace for buying and selling used heavy equipment, has acquired Kruse Energy and Equipment Auctioneers, the leader in oilfield equipment auctions, for an undisclosed sum.

"IronPlanet and Kruse will give our oil and gas customers an integrated marketplace to manage their inventories more effciently," said IronPlanet chairman and chief executive Gregory J. Owens. "We will be able to offer them the channels they need, either traditional auctions or online marketplaces, to achieve their aim to market and pricing objectives. IronPlanet will benefit from Kruse's expertise and leading position in the industry,

and likewise, Kruse will broaden its reach by leveraging our online technology marketplace and global buyer base. This combination strongly positions IronPlanet for further growth in the oil and gas industry, an area where we see significant growth potential."

Chicago Pneumatic launches in China

Construction equipment manufacturer Chicago Pneumatic is introducing its RX rig mounted hydraulic breakers to the Chinese market in the first phase of a major expansion programme in the country. A network of distributors is being established across China to make the breakers accessible to users in the construction, mining and quarrying industries.

"Our RX breakers are excellent flag bearers for the range of construction equipment we are introducing to China for the first time," said CP business development vice president Andrew Cope. "They represent a cost-effective solution for those seeking to invest in durable and robustly built equipment that will perform in the toughest environments. Tools of this kind will be vital to this country's construction industry, which is ready for growth, and also to the mining and quarrying industries which remain such strong contributors to the Chinese economy."

The RX breaker range incorporates light, medium and heavy breakers, providing for a wide range of applications, from day-to-day construction with the lighter models to heavy-duty quarrying with the larger breakers.

The range is characterised by a level of durability that minimises downtime and is smartly designed with only two moving parts to ensure a long and low-maintenance working life.

The heavy breaker range, which includes the RX26, RX30, RX38, RX46 and RX54, features a service weight from 1.8t to 4.2t fitting carriers with weights ranging from 20t to 70t, making the breakers ideal for heavy demolition, rock excavation and quarry applications. The breakers in the heavy range are equipped with a reinforced breaker box with rock claws.

The light and medium rig-mounted



breakers comprise nine models designed to match various application needs found in general construction, light to medium demolition, renovation and trenching. With weights between 94kg and 550kg, the light breaker range of RX 2 to RX 11, is for carriers in weight class of 1t to 15t. The breakers are ideal for applications in light demolition, landscaping, building renovation and road construction. The medium breaker range of RX 14 to RX 22 incorporate weights between 800kg and 1.5t and is for carriers weighing 12t to 28t. The breakers are for applications in demolition, building renovation, road construction, rock excavation and quarrying.

Keltbray to demolish London's Earls Court

In the UK Developer Capital & Counties has confirmed that Keltbray will start demolition in February of the famous Earls Court exhibition halls in West London. The vast job is due to take up to two years to complete, paving the way for major construction works to create a new neighbourhood of 7,500 homes. Contractor Sir Robert McAlpine and Keltbray have been on board as construction and demolition advisers on the vast project. The first phase of the £3bn (EUR3.8bn)Earls Court scheme at Lillie Square has been prelet and enabling works are almost complete. Lillie Square will consist of 808 homes and will sit next to four new neighbourhoods planned on 77acres surrounding the Earls Court exhibition halls. A contractor is yet to be confirmed for the first blocks at Lillie Square. The master plan has formal outline planning consent for 93.830m², with the Empress State Building office tower consented for a further 56670m². In total the Earl's Court development will create 7,500 homes and 10,000 jobs. It will also see the development of a new primary school, leisure centre and health facilities, as well as community and cultural spaces. Green open space of 37acres will be provided, including a 5acre park. There will also be major improvements to the transport infrastructure, including increased capacity at Earls Court, West Kensington and West Brompton underground stations.

Arty cutting

Although Husqvarna machines are used predominantly on construction projects, they can also have an artist use as demonstrated by the French sculptor Harut Yekmalyan. He has been advised by Husqvarna sales manager for France Jean-Marc Pouillon, to use a Husqvarna K 3000 Cut —n- break for making angle and straight cuts in a granite block sculpture. According to Yekmalyan, the K 3000 Cut—n-break is very powerful and allows straight cuts up to 400 mm deep.





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CSDAA President Jason Franken reports from the Australian market

As 2014 draws to a close we look forward to the Christmas break and some time off to share with family and friends. I make special mention of this because of the recent tragedy in Queensland, Australia with the sudden passing of Jarrod Clayton. Jarrod was a respected and valued member of Condrill Services in Queensland, and will be sorely missed by those that grew up and worked with him. There are very few words that can adequately account for the loss and suffering Jarrod's parents, Graham and Leanne, sister Bree along with loving wife Leigh are feeling at this time. In support of Leigh who is expecting her first child in the coming months, I ask that we all provide support

to ease some of their burden caused by his loss.

The Concrete Sawing and Drilling Association of Australia has set up a contribution fund to accept all donations on behalf of Leigh Clayton to provide financial support in their time of need. I would ask all employers to share this tragic event with their staff and join with us as a collective group to show support and help all those who knew

To make a donation please go to the CSDAA home page at www.csdaa.com. au and look for the section titled Jarrod Clayton. For those that did not know Jarrod there is a moving tribute that was published in the Gold Coast Bulletin on the 23October 2014. To read more please visit: http://www.goldcoastbulletin.com.au/news/just-18-months-after-turning-off-one-sons-life-support-

Jarrod get through this difficult time.

the-clayton-family-was-forced-to-doit-again-for-their-27yearold-son-jarred/ story- fnj94j0t-1227099148477. Jarrod's passing was not a work related incident, rather a tragic accident. I think we all need to be reminded at times such as this, that our actions can have consequences.

In a work environment we have choices and make decisions that we sometimes consider routine and repetitive. The CSDAA charter is to represent the industry members without bias or favour, and to promote the greater good for all. A fairly catchy description that I guarantee will draw comment. In reality the CSDAA is struggling to achieve this crescendo, not through lack of resolve,

but lack of resources.

The CSDAA has evolved over the years with humble beginnings and good intensions to a full time business with part time employees. This is an unsustainable business model and must be changed, as we are creating conflicts of interest with members and contractors inherited with this business model.

The executive committee meets four times a year with each meeting taking six

hours to complete the agenda items. The association manages in excess of \$250,000 (EUR166,000) in business revenue and expenses, as a non-profit organisation. This is all managed in a total of 24h actual sitting time with face to face communication. How many employers believe that this time is sufficient to run a business with this volume of turnover? The facts are it isn't and this

is an issue that needs to be addressed not only by the executive, but by all members and contractors that work in the sawing and drilling industry.

The business model I would like to see implemented requires full time employment, five days a week of an independent executive director. This position is independent of the executive committee and has overriding authority over the executive committee. This business model may sound familiar to some in the industry as it is used by the Concrete Sawing and Drilling Association in the US with a proven track record.

The issue we face to implement this business model is simply support and funding. It is a catch 22 situation we face based on reluctance and doubt from too many sawing and drilling contractors. Yes we have made mistakes and guess what we will most likely make a few more but these are unintentional and brought about by limitations to manage association business over our own business interests.

In the next eighteen months the new course in concrete sawing and drilling will be in full effect. The increase in administration costs to ensure this training qualification is delivered and recorded to meet the auditing processes is massive and one more issue we need to find a solution for.

On the 28 September 2014 the course in concrete sawing and drilling was accredited by the VRQA and listed on the national training web site at www.training.gov.au to locate the course you will need to type in the course identifier number which is 22281. What you will see is a schedule of modules that make up the overall course. There is no additional information available on the module content at this time as it is still being developed by the course developers.

This course development process involves writing the training and learning materials for nine new modules relevant to the sawing and drilling industry. It is expected that this phase of development will be completed by June 2015. It will then take an additional two months to have the complete course approved and signed off for delivery.

Currently we are in discussions with RTO providers with the ability to deliver RPL assessment Australia wide along with a site facility that can accommodate the actual delivery of the 22281 course.

In closing I guess we have well and truly passed the point of no return as we strive to deliver a qualification standard unique to our industry. I encourage all contractors to look at the big picture here and assess the overall benefits this training will deliver in the years to come. We need your support to make the changes necessary to make the association more transparent. If you are not happy with what is going on within the CSDAA become a member and make the changes happen. Strength in numbers will see this done.

Jason Franken President CSDAA, Australia



Sudden passing of young Australian concrete cutter

Australian Concrete Cutting Industry in mourning. Just 18 months after turning off one son's life support the Clayton family in Australia was forced to do it again for their 27 year son. Jarred was a respected and valued member of Condrill Services in Queensland, and will be sorely missed by those that grew up and worked with him.

Jason Franken, president of the Australian concrete sawing and drilling association, CSDAA made a special mention in the association's most recent issue of its magazine Diamonds about the recent tragedy that has affected a concrete cutting family in Queensland, Australia with the sudden passing of Jarred Clayton. There are very few

words that can adequately account for the loss and suffering Jarred's parents, Graham and Leanne, sister Bree along with loving wife Leigh are feeling at this time.

In support of Leigh who is expecting her first child in the coming months, the association and its members will provide support to ease some of their burden caused by his



loss. The CSDAA has set up a contribution fund to accept all donations on behalf of Leigh Clayton to provide financial support in their time of need.

www.csdaa.com.au



Mew Cutters HAVE THE FLOOR

Concrete cutting techniques are truly universal. Specialist contractors in every corner of the world now use them and the geography of those who manufacture this specialized equipment is also expanding. Andrei Bushmarin reports on the latest developments in the floor sawing sector.

Australia is not exactly famous as a concrete cutting hub. There is a common perception that cuttingedge hardware is devised predominantly in Europe, while Asia accounts for most of the world's output of diamond consumables. But is this true?

Meet Makinex and its floor saws

The Australian company Makinex based in Sydney has been providing equipment to the construction, landscaping, infrastructure and related industries since 2004. Makinex's latest range of floor sawing machinery includes three petrol and electric models. They boast a number of improvements aimed at enhancing ergonomics and productivity. Sturdy and easy-to-operate, the machines are designed for concrete cutting at a depth of up to 153mm using a 350 or 400mm diameter blade without needing to reconfigure the pulley system.

The new petrol model comes standard with a

Honda GX270 series motor that has greater fuel efficiency, lower emission level and quieter performance. The FS-130SP electric 356mm, FS-150P petrol 406mm and FS-150ETP electric 406mm models complete the range. Thanks to the in-house flush cutting system, which allows greater depths with less force, and the pneumatic shock absorber adjusting the cut depth to suit the application, Makinex floor saws are ideal for cutting concrete slabs, pavements, crack chasing, roads and footpaths.

An adjustable rear axle enabling the blade to cut flush against walls and curbs makes them easy to use on constrained job sites. Other features include a depth indicator, guided sight for straighter cutting and adjustable handle bar height for ergonomic operation.

www.makinex.com.au

From Russia with...a floor saw

Russia is another example of an economy, which relies on the import of machinery rather than export. There is a handful of diamond tooling manufacturers in the country, but no company has made a stab at building concrete cutting hardware, except St. Petersburg-based DUS. Headed by Maxim Petrov, who is also one of the co-founders of Russia's Sawing and Drilling Association, DUS has been supplying



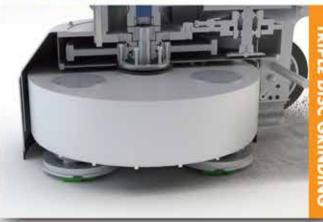






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concrete cutting and demolition equipment to local contractors for over 10 years.

Having consolidated its position as one of the domestic industry's prime suppliers, DUS took a bold decision to try its hand at making cutting equipment. Research and development efforts went on for 10 months and resulted in the electric floor

saw DUSFS 270. Powered by a 7.5kW electric motor, the floor saw accommodates diamond blades up to 800mm in diameter and has a maximum cutting depth of 320mm.

Due to its compact dimensions, the machine fits into any standard-size doorway, easy to manoeuvre onsite and, once the job is done, can be dismantled into three pieces within 10 minutes for transportation. The DUSFS 270 comes, as standard with the conventional electric motor, but it is also available with a HF speed regulator.

www.dus.ru

Innovative power transmission on Tyrolit machines

Tyrolit Hydrostress has expanded its floor sawing range with another model featuring the company's









innovative power transmission system. Designed for cutting asphalt, green and cured concrete to a depth

of up to 480mm, the new 55kW FSD1274*** floor saw boasts a three-speed gearbox, which ensures optimum blade speeds and long blade life. The gearbox enhances power transmission

to the saw blade shaft, which results in higher cutting performance. The patented adjustable handles serve to increase the machine's manoeuvrability. The floor saw is almost maintenance-free due to the blade drive shaft being located in the oil bath. There are no





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Dedicated Demolition Line - DLC/DRC

Especially made for full hydraulic quick coupler systems









Dedicated Demolition Line - DLD/DRD

Especially made for full hydraulic quick coupler systems













Dedicated Demolition Line - DLP/DRP

Especially made for full hydraulic quick coupler systems







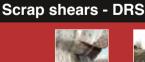




















Railcutter - RC





Trendsetter in Demolition and Recycling Equipment

EUROPE: DEMAREC • Demolition and Recycling Equipment BV • Den Hoek 10 • 5845 EL St. Anthonis (NL) USA/CANADA: KINSHOFER • Inducon drive • Sanborn, NY, 14132 (USA) • Tel. +1(905)335 2856

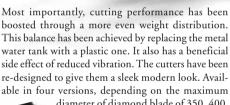
demarec.com kinshofer.com lubrication points and the driving belts do not come into contact with slurry.

The FSD1274*** is powered by a Kubota turbo diesel engine, with the cutting depth being adjusted electromechanically. An automatic water shut-off system is installed to reduce water consumption. For operational safety, the saw is fitted with an electronic saw blade clutch. A re-designed cover protects the operator from hot and moving engine parts and helps reduce the noise level.

www.tyrolit.com

Two Tier 4 Final-compliant models from Husqvarna

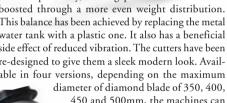
Husqvarna Construction Products used the last World of Concrete show to unveil two new floor saws complying with the latest Tier4 Final/Stage III B emission regulations. Sturdy and powerful, the FS 5000 D and FS 7000 D are designed for heavy-duty applications. The bigger FS 7000 D is a walk-behind model suitable for roadwork, large sawing jobs and deep floor sawing. The smaller FS 5000 D is perfect for small to midsize jobs, service work and floor sawing. As with all Husqvarna machines, great importance is





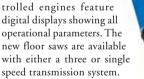
Sea Technology launches Seafloor 500

Another Italian manufacturer, Sea Technology, used Samoter to present its new model Seafloor 500. Powered by a 10kW Honda engine, the compact and powerful Sea-



450 and 500mm, the machines can be fitted with different engines.





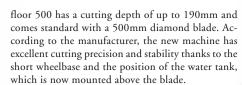
attached to ergonomics and user-friendliness.

The electronically con-

www.husqvarna.com

New cutters from Cuts Diamant

The new range of walk-behind floor saws from Italian company Cuts Diamant boasts a number of improvements on its forerunners.



www.seatechnology.eu



PDi special feature

Making the world greener – with Hiperfloor

In the US city of Portland, Oregon, there is a new seven-storey building called ArtHouse, which is collaboration between The Pacific Northwest College of Art and the local Powell family. Lever Architecture, the firm developing the new student community, wanted to emphasise sustainability and green construction right from the start.

Making the world cleaner

On the ground floor level, ArtHouse consists of small commercial retail spaces and Lever Architecture turned to Husqvarna for the floors. "I have been involved with a number of projects with exposed aggregate in ground concrete floors, and Husqvarna's product and equipment is superior in terms of the ability to expose aggregate and also create a flat finished surface," said Lever Architecture representative Thomas Robinson.

"It's a very clean and long-lasting floor, and it's also beautiful, which is important in retail spaces," said Husqvarna Construction Products Architectural Specifications manager Christopher Bennett. "But the most important aspect is that every time we make a Hiperfloor we are making the world just a little bit cleaner. A Hiperfloor uses less chemicals and materials and it keeps the energy bills down, because the warm, very natural reflectiveness of the floor reduces the need for overhead lighting."

Getting a leadership in energy and environmental design rating gold certificate from the US Green Building Council is very hard, and it will take a year after completion before it is decided what level of certification ArtHouse would achieve.

"First the USGBC will study everything from project conception to completion, what pipes you use, what your roof tiles are made of, your air conditioning systems, if you're recycling waste on the construction site and how you dispose of materials," said Bennett. "And when the building is operational they check your power and water bills and investigate if your facility is actually reducing energy consumption."





More Hiperfloor floors to come

Lever Architecture is pleased with Husqvarna's work, and plans to use the Hiperfloor solution again. "It is suitable for use in high wear locations requiring a long-lasting, durable, and aesthetically pleasing appearance. In contrast to products such as terrazzo or tile, its finish is not an application, but a product of how it's made. It feels more genuine," said Robinson.

"I'm proud that Husqvarna has been a part of this. A lot of people claim that their products are sustainable, but the Hiperfloor actually delivers. It looks beautiful, and it's actually very good for people," said Bennett.

www.husqvarnacp.com







Brokk and Darda perform at the theatre



In Germany two Brokk demolition robots equipped with Darda concrete crushers are assisting in the restoration of the theatre in Freiburg. For the demolition work, a compact and efficient method had to be found. The company awarded the contract, Kult - Tiefbau - Abbruch - Entsorgung from Oberried, had the solution of a Brokk 330 demolition robot equipped with a Darda CC560 concrete crusher and a Brokk 160 with Darda CC420 concrete crusher. The electro-hydraulic drive of the demolition robots does not generate much noise or annoying emissions. Concrete crushers are quieter than hydraulic hammers.



Darda concrete crushing force is generated independent from the carrier unit.

The performance of the Brokk robots is greater than mini excavators of comparable weight. And the Darda concrete crushers are extremely effective, even on smaller machines, because their high breaking force is generated independent from the carrier. This way the CC520 has a power of 466kN and the CC 420 works with 382kN of force and both can cut up to 28mm diameter rebar. The Brokk 160 weighs 1.6t and has a transport width of 780mm. Its big brother, the Brokk 330, weighs 4.5t and is 1.5m wide. The narrow access paths, the transport elevator and the cramped conditions inside the building all presented no problem. The 150kg weight of the Darda concrete crusher CC420 and the 240kg of the CC520 were also never an issue.

The machine operator controlled the demolition robot as well as the concrete crusher and robotic arm by long range remote control cable. This way the operator was able to view the demolition area from various positions and angles and work more precisely. With the help of both demolition robots and concrete crusher units, it was possible to break down approximately 170m³ of reinforced concrete and 110m³ of masonry in several stages within six weeks.



The UK diamond drilling and concrete cutting company D-Drill, has invented a machine that can cut granite kerb stones an angle in situ to allow easy access by cars, bicycles and other vehicles. The Cyclpath, devised by D-Drill managing director Julie White and her father and former owner of the business, Peter, means that kerbstones can be cut and remain in place.

The machine was invented when a contractor creating a major new cycle path approached the company to see if it could angle-cut a kerb. There was nothing available internationally so the company came up with their own concept. The patented machine's first job was to cut 20m of granite kerb just off Piccadilly Circus, Central London, on behalf of Westminster City Council.

The angled kerb was required because it was a drop-off point and the existing kerb was resulting in damage to vehicles. The Cyclpath machine produced the desired effect, and D-Drill also introduced a new vapour-blast machine, to provide an identical finish and texture in keeping with the rest of the street. Julie said that success had proved the capability of the new machines and has led to discussion over its possible use on the larger projects.

"When we were originally approached, I presumed there would be a machine on the market," said White. "When I explored the UK and found nothing, I tapped into my contacts in the US and elsewhere in the world and everyone was drawing a blank. I didn't want to turn down the opportunity and got talking to my father about it and I could see a sparkle in his eye as soon as I started to tell him. Within a couple of months, we'd got a working pro-

totype and then the first ever Cyclpath which we have patented."

The job in London proved to be the ideal example of how it can work because the 90? kerb was causing problems for vehicles dropping off passengers and needed a 45? chamfer. "But the council didn't want to close that part of the road or dispose of 20m of expensive granite kerb to then replace it at considerable cost," said White. "So by utilising the Cyclpath, our team could get the kerb cut in just a matter of hours and solve the problem. We cut the kerb while shoppers and tourists were able to go about their business uninterrupted, which makes a huge economic difference as opposed to closing off the area.

"We are really excited this new machine could lead to because it is perfect for cutting angled kerbs for cycle paths and there is now interest from councils and highway teams around the UK. We have proved that it works and we have proved the financial and environmental benefits. The potential both at home and abroad for these technologies is limitless."



Managing director of D-Drill Julie White and the Cyclpath in action

The Dutch company A. van der Jagt has a 45 year track record in demolition, concrete cutting and drilling. It specializes in non-standard projects involving asphalt and concrete cutting with time restrictions.

In order to offer one of its clients the shortest cutting time for deep cutting in concrete and asphalt and to keep their operators happy with machine handling during night and weekend shifts, the company bought a new Lissmac Unicut 500 diesel ride-on floor saw with a 75kW engine.

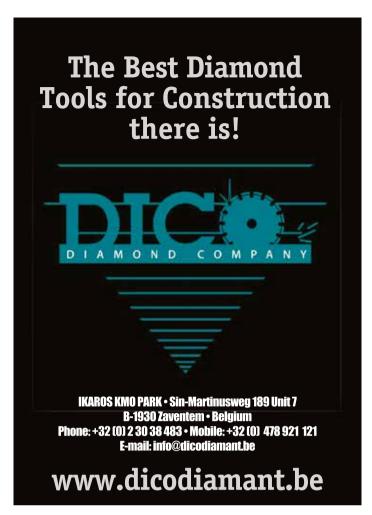
Benelux diamond tool producer Adamas supplied the floor saw and designed a new range of saw blades with patterned diamond segments to achieve the optimum cutting production. The asphalt saw blades were

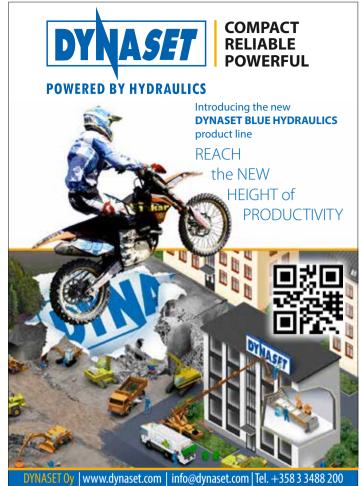
used on a project involving 6km of cutting at a depth of 250mm.

The project, which was completed on time and within budget, was done using a team of two floor saws. The first cut was done with the new Lissmac Unicut 500 floor saw cutting up to 150mm deep and followed by a Cedima 45kW floor saw cutting the last 100mm.











Hatz at bauma China

At bauma China diesel engine manufacturer Hatz presented the 4H50TIC open power unit. This is a plug and play version of the new water cooled 2liter engine, announced in the middle of the year, and has been developed for medium size original equipment manufacturers.

Based on a 55kW Hatz 4H50TIC engine, the OPU includes all parts needed for the operation of the engine in addition to standard delivery. This includes radiator and intercooler which are mounted vibration-decoupled, and the corresponding piping and wiring harness. All parts are factory-installed in the production process, tested

and prepared to be ready for installation. Customers only need to connect tank, pre-filter and pump as well as air filter, battery and control box.

It is possible to achieve the exhaust emissions standards EU 97/68 Stage IIIB and EPA Tier 4 final without the use of a diesel particulate filter. However, a particulate filter is available as an option in emission sensitive urban areas. It also has low operating costs, as fuel consumption is 210g/kWh and service interval is 500h.

The system is ideally suited for applications such as hydraulic lifts, hydraulic power units, forestry machinery, drilling rigs and stationary applications, such as pumps and generators. The cooling system is designed for temperatures up to 46°C as a standard, but can also be customized for other temperature requirements.

The Hatz 4H50TIC diesel engine is among the top 10 of Europe's most wanted environmental award, the GreenTec Awards. Public online voting that takes place from 6 November 2014 until 11 January 2015. The 4H50TIC can be selected directly to the final by visiting www.greentec-awards.com. Among the three projects nominated for the final round, a jury will select the winner to be announced on 29 May 2015 in Berlin.

LiuGong's largest wheel loader launched

LiuGongl used bauma China for the world launch of its largest wheel loader, the CLG8128H. With a 7m³ rock bucket and 4.04m dumping height the CLG8128H is mainly aimed at use on large projects. It has a 12t rated load and 360kN breakout force, and takes 7.4s to raise the bucket for full loading. LiuGong has been involved with wheel loader technology for more than 50 years. In 1966, the company introduced China's first wheel loader the Z435, and followed in 1971 with the first articulated wheel loader in China. In 2001, LiuGong produced the world's first plateautype wheel loader and in 2007 claimed to be the largest loader supplier in the world.

www.liugong.com







Komatsu Europe International n.v. launches the D155AX-8 Crawler Dozer

further reduces NOx emissions by using Diesel

Exhaust Fluid (DEF). An advanced electronic

Komatsu Europe International n.v. introduces the D155AX-8 crawler dozer. With operating weights between 38,000 kg and 43,000 kg (depending on machine configuration) and a net 264 kW (354 HP), the D155AX-8 is powered by a Komatsu SAA6D140E-7 engine, which is EU Stage IV emissions certified.

Still more productive, dependable and efficient, the Komatsu EU Stage IV engines are built on a solid foundation initiated in 1996 with the introduction of Komatsu's Tier 1 (Stage I) engines. The more environmentally friendly D155AX-8 crawler dozer leverages Komatsu's leadership in technology and innovation with high levels of performance and reduced fuel consumption and operating costs.

Key features of the new crawler dozer

Komatsu EU Stage IV Emission Certified Engine —
Productive, Dependable, Efficient.
Komatsu's EU Stage IV engines are built on the strength of its proven EU Stage IIIB foundation. By integrating Selective Catalyst Reduction (SCR), the EU Stage IV engine

control system manages the engine's air-flow (KVGT) and an Exhaust Gas Recirculation rate, fuel injection, com-(EGR) valve for more precise temperature and bustion paramair management control and longer eters. The after component life. To ensure treatment product reliability and durability in functions optimize demanding perforconditions. Komatsu

mance, reduce emissions, and provide advanced diagnostic capability. The result is lower fuel consumption with no loss of veloped the entire system, including the control software, which is critical to the effective operation of the aftertreatment system. This control system is also integrated into the machine's on-board

performance. Komatsu continues to use a

Komatsu Variable Geometry Turbocharger

diagnostics systems and in KOMTRAX™, Komatsu's standard telematics system.

Komatsu patented SIGMADOZER® blade for unsurpassed productivity

The D155AX-8 is equipped with SIGMADOZ-ER® blade, which gives the machine a high blade capacity of 9.4 m². SIGMADOZER® dramatically improves dozing performance and increases productivity by up to 15% over a conventional semi-u blade. The blade features a frontal design concept for digging and rolling material in the center of the blade. Soil-holding capacity is increased and digging resistance is reduced for a smoother flow of material. Larger amounts of soil can be dozed with less power

Automatic transmission significantly improves fuel economy

The D155AX-8 has an automatic gearshift transmission and lock-up torque converter that greatly reduces fuel consumption and provides exceptional power train efficiency. The lock- up torque converter automatically transfers engine power directly to the transmission, decreasing fuel consumption by up to 10 % while machine power is maintained.

www.komatsu.eu



Unbeatable performance

Nobody beats Brokk when it comes to demolition at reconstructions or renovations of residential, commercial or industrial facilities. This remote-controlled, electric powerhouse combines impressive hitting power with an outstanding reach, while the operator works at a safe distance from vibrations and falling debris.

Brokk is so light that it can work even on weak floors. So clever that it can take the stairs (or the elevator) between floors. So effective that you see the difference on the bottom line. In each project.





Northbank goes Blue



The UK demolition specialists Northbank Demolition, based at Cadishead on the western outskirts of Manchester has bought its third Powerscreen crusher, the company's first Premiertrak 300 mobile jaw crusher from UK dealer Blue Machinery.

Northbank, which is a member of the National Federation of Demolition Contractors and operates nationwide, will use the Premiertrak to undertake the processing of demolition waste for recycling.

The 32.5t compact crusher can be used in city centre locations with little noise impact on the surrounding area. "The Premiertrak 300 is an ideal tool for our operation, as its size and productivity of up to 280t/h provides us with the ideal combination of both productivity and size," said Northbank Demolition managing director Paul Richards.

The Premiertrak 300 benefits from hydraulic crusher setting adjustment for control of product size and overload protection to prevent damage by foreign objects in the crushing chamber. A hydraulically lowering conveyor provides access to minimise downtime.

A further maintenance feature is the large under crusher clearance and full tunnelling to reduce the chance of blockage. The unit is fitted with an over-band magnet to enable any steel to be extracted and leave the final product as clean as possible.

"The build quality is second to none and it is perfectly set up for the demolition industry," said Richards.

With a 5m³ capacity hopper the 300 is suited to being loaded by one of Northbank's 25t Doosan excavators and when coupled with a 20m tracked conveyor, offers the company a very productive processing team. Ease of setting up is another benefit with jaw speed adjustable to suit various applications by a single button and all conveyors folding hydraulically.

"We didn't look at any other manufacturer as the 300 fits our needs precisely. It's well built, reliable, we get good service and back up from Blue. It is also easy to move and very economical to run. We simply couldn't ask for a better crusher for our operation," said Richards.



Doppstadt Screening Technology

With the new screen SM 518 plus the environmental specialist Doppstadt updated the series for separation and sorting in the raw materials processing. The range of possible applications of the mobile and stationary screens does not only include the requirements of classical recycling, but even tasks in the field of

agriculture and forestry and of

sand and gravel mining, for example. "Whether landfill, processing plant, contractor or building material supplier: "We can offer our customers today an individual and economically efficient, durable solution. This true for waste such as MSW and debris as well as for products

made from waste such as compost and biomass fuels and besides for raw materials such as wood chips, sand, gravel and earth", Karsten Runge reports, product manager from Calbe (near Magdeburg), one of the production sites of the internationally operating german enterprise.



Rockster prepares for winter

The Hochkönig ski area in the Austrian Alps always needs maintenance and renovation. One of the most recent projects involved a Rockster R900 crusher used by contractor G. Hinteregger & Sons Construction Company from Salzburg. They were commissioned from mid-June to mid-October to build a 70,000m³ storage reservoir and a pumping station, to supply water to the numerous snow machines used during the ski season.

The jobsite was located 1,600m above sea level and all of the excavated rock was recovered from greywacke shale, crushed with the R900 and reused in different areas on the site. For crushing the stone, Hinteregger hired a Rockster R900 impact crusher from Rockster's Austrian distributor Haberl Construction in Seekirchen. The R900 crushed material from 0 - 700mm in diameter and produced gravel of 0/32 and 32/70. The 0/8 material was separated by another screen and used for rock slopes below the drainage mats. The grain size 8/32 was used for drainage and the grain size 32/70 was required to overlay the lining foil.

R900 easily crushed 8,000 m³ of hard rock

In total, about 8,000 m³ of rock material was crushed at this alpine site. Project Manager of

the company Hinteregger, Johann Lienbacher reports: "We had hired a Rockster crusher for the first time and the performance exceeded our expectations. I would especially highlight the easy delivery and removal as well as the simple operation of the R900."

The 13th Rockster plant for Haberl

13 does not need to be an unlucky number! This is proven by the last machine transfer to the Haberl Construction GmbH at the end of this summer. A further R900 provides its services in the rental fleet of Franz Haberl and is continuously in use, says the entrepreneur. "We now have 6 Rockster plants in our rental fleet and all of them are very well utilized. Through years of cooperation with Rockster we have a lot of experience with the equipment and both our own team, and our customers appreciate the strengths of the Rockster technology." Georg Fuchsberger of Haberl Construction adds: "In particular, the continuous control of the crusher speed and the two independently adjustable swing beams are great advantages of Rockster crushers and guarantee our customers an easy and high quality final grain production."

www.rockster.at



Transport of the new R900 to the rental fleet of Haberl Construction Machineries.



Building a storage reservoir, capacity of 70,000 m3 in the skiing region "Hochkönig"



Sandvik launches impactor

The New Premium Q1441 mobile Prisec Impactor is the latest addition to Sandvik's Premium range of tracked impact crushers. Available in a heavy duty and compact format, all models possess high reduction ratios giving customers the best product shape, high productivity, low wear, easy maintenance and low cost/t. It offers flexibility and performance as a primary or secondary crusher through the use of the CI421 Prisec Impactor box.

The patented Prisec crushing chamber has been designed to enable the base crusher to be easily switched between primary and secondary mode, thereby providing two machines from one unit. The two hydraulically assisted curtains can be adjusted to allow the production of a wide range of high quality product sizes.

The new QI441 retains many features from the OI440 such as:

- Direct drive system for optimum fuel economy and low operating costs
- Large feed hopper with highly efficient pre-screening
- Underpan feeder to protect the main product conveyor from high velocity material from the rotor
- User friendly PLC control system and color screen for ease of operation

- Inlet opening may be raised by remote control to alleviate blockages
- Overband magnet, pre-screen and ceramic blow bars as standard
- Low wear, easy maintenance and a low cost per ton operation

The versatility of the QI441 is further ensured by a comprehensive range of optional extras that allows the crusher to be matched to customers' applications. These include a double-deck hanging screen with recirculation system. This is of particular benefit as conventional hanging screens are often a limiting factor with high capacity impactors, forcing customers into buying a secondary screen. The on-board doublescreen system matches the maximum capacity of the crusher, thus allowing the production of accurately sized products for immediate use at source from one machine.

www.sandvik.com



Aquajet's new website

Hydrodemolition equipment manufac-

site a comprehensive overhaul and total



makeover. The old website has been used for year. "After all, modern hydrodemolition products need an equally modern website," said Aquajet's Patrik Andersson.

www.aquajet.se



HTC aims to do

Since HTC Group in Söderköping, Sweden was acquired by venture capital firm Polaris Equity in May 2013, the company has undergone some organizational changes that aim to double the group's turnover in the next five to seven years. During the summer of 2014 the company's sales force was strengthened by 20% and Stefan Lind appointed chief executive in September. PDi's Jan Hermansson reports.

Last year HTC Sweden Polaris was sold to Polaris Equity after having been in the founder's ownership, the Thysell family, since 1987. Since 2013, when the business was acquired by Polaris there have been major changes. The Thysell family left the business together with some other management personnel. Per Öhström was hired as the new chief executive of the American company and in September Stefan Lind was appointed the group's new chief executive of the world's largest manufacturer of machinery and tools for grinding and polishing concrete floors.

Encouraging individual initiative and responsibility

Lind is 51 years old and grew up in the southwestern part of Sweden, but lives in Stockholm. However, he has his office at HTC's headquarters in Söderköping. Lind is an economist with a degree from the Stockholm School of Economics and has an extensive background in the industry, with a focus on sales and marketing. Lind comes

Below Stefan Lind, HTC's new executive.





from B & B Tools where he was managing director for Luna Tools & Machinery in Alingsås and a member of the executive management group.

"During my career, I have worked hard to develop structured sales processes with the goal to increase sales volumes," said Lind. "That experience I am sure that HTC can take advantage of. I have also developed various forms of marketing concepts that offer customers the best solutions and tangible added value. With that as background, I can certainly help to make the concept HTC Super Floor even more successful. Finally, I have a management style that encourages employees to take their own initiative and responsibility. I think that fits a company like HTC who want to convey knowledge to our customers and provide innovative solutions."

Lind has no previous experience of the floor treatment sector, which can be an advantage as he will be unaffected in driving the company forward. "The first thing that struck me when I started was the tremendous expertise of the staff. HTC is truly a knowledge company and that gives us a strong position in the market. Our customers know that we have the highest standard of competence when it comes to grinding and polishing of concrete floors and other hard surfaces. At HTC customers are welcomed by experts who know what they are talking about and that can solve their needs."

Strong forward initiative

When the founder and former owner of the company, Hakan Thysell, was head of the business the speed of development and innovation was high. It happened a lot during the very late 1990s and early 2000s. Sales doubled several times and targets were set high. Although the pace of development has been good, it has not quite equalled the goals they hoped for. Through international expansion sales volume between SEK200M to SEK300M (EUR21.4M to EUR31.1M) was achieved in 2006 and 2008. With fluctuations turnover has stayed at around

300 million for the whole group. Currently Group turnover is EUR38.6M with 160 employees.

"Our goal is to double sales in five to seven years," said Lind. "At the same time, we will maintain our position as world leader in terms of machinery and equipment for grinding and polishing concrete floors and other hard surfaces. We will also reinforce the image of HTC as a knowledge company and to safeguard the company's power of innovation."

Lind emphasizes that the focus of HTC's development will continue to be on the company's core products, which are floor grinding and polishing machines, tools and the HTC Twister cleaning and maintaining system. Lind believes that all product sectors have huge potential and especially the concrete floor polishing system HTC Superfloor. It is in this area that the company continues to have the greatest potential. "With the HTC Superfloor, we benefit from our deep knowledge of concrete, while we provide our customers with a very good overall concept. Our customers can transform dull concrete floors to shiny, easy to clean and durable flooring with low life cycle cost. In addition, the concept is very environmentally friendly and provides beautiful floors, two important arguments today."

HTC is already on the path that Lind aims to develop, but he wants to more than reinforce the image of HTC as a knowledge company. Therefore, HTC will continue to invest in the continuous development of employees' skills when it comes to grinding of concrete and other hard surfaces. HTC will continue to ensure that customers get part of the knowledge that HTC possesses, for example through training at the HTC Academy in Söderköping.

The aim is also to make the sales process more focused. During the summer and autumn, the company strengthened its sales force by 20%. "The fact is that HTC have never before enjoyed such a powerful sales organization and it will bring us even closer to our

uble sales

customers and provide opportunities to increase sales volumes," said Lind. "HTC will also focus even more on bringing out their own Superfloor concept, where our clients transform ordinary concrete into shiny, beautiful and easy to maintain floor."

Continue to increase the level of innovation

HTC has proven that innovation prevails, HTC started a whole new industry by developing the planetary floor grinding method and tools for removal of various types of floor coverings, adhesive residue, paint and more. The old single grinders that provided weak removal and uneven surfaces virtually disappeared from the market. All of a sudden new tasks popped up for floor specialists, concrete cutters and demolition contractors. And in the next stage, with HTC Superfloor, HTC laid the groundwork for transforming the concrete floor for a final product. In short, innovation is intimately connected with HTC and Lind confirms that it will be in the future as well. "HTC will continue to be number one in the world when it comes to solutions, machinery and tools for grinding and polishing concrete floors and other hard surfaces, but then we must also remain the strongest in terms of innovation and product development," said Lind.

The market and the future

Lind says that HTC's most important and strongest market areas are North America and Europe. But in recent times they have had good growth in both the Middle East and in Asia. Individual countries that are particularly successful are the US, Sweden with Scandinavia as a whole, South Africa, UAE and Australia. Growth will mainly occur in markets where HTC is already strong, but there is a growing interest for its products from other parts of the world such as Asia. So Lind thinks that eventually they will see a certain portion of growth in markets that HTC is not yet strong. Marketing and sales of the company's products are made directly from the head office in Söderköping and through the five sales companies, which are located in Sweden, Germany, France, UK and USA. In addition to its own sales companies, HTC has a global presence with distributors in over 60 countries, including Norway, Denmark, South Africa, Switzerland, Benelux, Poland, the Baltic States, Australia, South Korea, Chile and the UAE.

Made in Sweden

The company's research and development, manufacturing and final assembly is concentrated at the headquarters in Söderköping. Some manufacturing of diamond coated Twister pads occurs at HTC's subsidiary in Knoxville, US. HTC purchases a very small percentage of components from subcontractors. It is mainly the components for floor grinding machines that are manufactured by others, but all final assembly and quality control takes place at HTC Söderkoping. HTC has no plans to relocate production or part of the production to other countries. When HTC launched their new technique for grinding and polishing concrete floors it took the market by storm. This was during the first half of the 1990s. To use a new type of planetary system with multiple grinding wheels that interacted and efficiently removed floor coverings and smoothed the concrete floor was a revolution at the time. Many manufacturers wanted to enter this new





market and HTC ended up in patent battles. When HTC launched the HTC Superfloor concept a few years later the market exploded again, in particular in the US. The use also increased, but took a little more time. At trade shows around the world and especially in the US, there were many manufacturers of floor grinding machines, with several coming from Asia.

The boom has now subsided and the market has begun to consolidate. But there are a number of strong competitors to HTC. "There is tough competition in the market, but which is our main competitor differs from market to market," said Lind. "However, we feel that our biggest competitors are other methods for preparation of concrete floors, such as blasting and milling methods. It is important that we and other manufacturers of concrete floor grinding and polishing machines and tools work to explain that the benefits of using our methods are the best and not least for the environment."

Future products

HTC's products have always been perceived as sophisticated and maintaining a high level of quality, especially the black machines. But to meet demands in tougher environments, where the machines are used in shorter intervals and that can handle rougher treatment, HTC developed the Greyline series. Greyline came a couple of years ago and includes four floor grinders, two dust collectors and a pre-separator. "Greyline is a range of so-called basic models for particular customer segments, solike rental, but also for contractors with rather short jobs for removing adhesive residue and other contaminants and to smooth the surface of a concrete floor," said Lind. "Greyline can work in harsh conditions and also take rougher handling. The investment in the HTC Greyline has worked very well and I see it natural to have several









product lines tailored to different customer segments."

Greyline is the latest from HTC, except some new tools for grinding and polishing, but there are some new products coming. "Right now we are preparing for the World of Concrete in Las Vegas in February. I will not go into what new products we have in the pipeline, but I can say that we are preparing to have the world premieres of more innovative products from HTC at the show," said Lind. "New products will also be promoted on our website just before the show. Those customers, who will not be able to visit us at the show, can go to htc-floorsystems.com in February."

www.htc-floorsystems.com



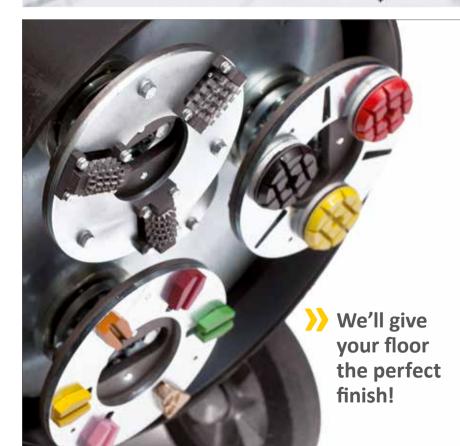
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Atlas Copco's construction App

Atlas Copco Construction Technique Business Area is launching a Construction App for use with Apple and Android devices, tablets and smart phones. The new App contains a huge store of information about Atlas Copco's

extensive range of products and services for the construction sector. It also keeps users up to date with the latest news about the construction market and has a host of other useful features.

The App provides all the information reguired to make the optimum choice when selecting from Atlas Copco's extensive portfolio. It contains



information on por-

table energy products, road construction equipment, demolition and recycling equipment, concrete and compaction equipment, and service products.

The latest information and technical data on Atlas Copco construction equipment are easily accessible in the App and can all be

downloaded. The App also provides heads-up notifications of new product launches, and other important news.

> Filters make it easy to find products and if more information or a quotation is required it can be requested within the App. The App also contains videos for training purposes and interviews about Atlas Copco's operations. Based on users' locations it will give information on the location and contact details of the nearest Atlas Copco Customer Centre. The Construction App is the simplest way to keep informed about Atlas

Copco's entire offering to this industry. It also enables users to engage with Atlas Copco on the social media and other media channels. It is a tool that makes life simpler for everyone involved in using, purchasing or selling Atlas Copco construction equipment.

www.atlascopco.com

Increased capacity for Metso's new Nordberg C130 jaw crusher

Metso's new 40t Nordberg C130 jaw crusher has a 21% larger cavity volume in comparison to previous models in this size class, the company claims. The larger cavity volume allows more rock or ore in the crushing process at one time. The increased volume, combined with the extra large feed opening, ensures high-capacity primary crushing in quarrying and mining applications. "The new cavity can process over 20% more material, increasing crushing capacity significantly. " said Metso



iaw crusher product manager Ilkka Somero.

www.metsominerals.com



Successful Bauma **China for Sandvik**



Sandvik Construction had a successful Bauma China exhibition held in Shanghai in November. The company highlighted the Chinese and Asian focus of the total solutions product ranges and launched several new products.

Participating at Bauma China enabled Sandvik Construction to show how it is able to provide specific solutions for its Chinese and Asian customers. Sandvik products provide Chinese and Asian solutions for virtually any application, enabling businesses, such as surface rock quarrying, excavation, tunnelling, demolition, recycling and civil engineering to improve their performance. The Sandvik range of products to service these industries were all represented at Bauma China. Visitors to the Sandvik stand had the opportunity to see new equipment and solutions for the very first time. Many of the products launched at the show have been developed with the requirements of Chinese and Asian customers very much in mind and include the following:

- New SK2462 Screen global product launch
- New Cl532 Impact crusher -Chinese product launch
- New 4099 Pro breaker global product launch
- New Tiger DG800 global product launch
- New mobile crushers and screens -QI441 - Chinese product launch
- New CH440 cone crusher modular plant - Chinese product launch

A tour of the Sandvik Jiading factory also alowed customers to see how Sandvik equipment is manufactured locally.

www.sandvik.com

Efficient and sa clemolition in D

"Now the balcony sawing industry is booming," said Lennart Östervald, responsible for balcony demolition at the Swedish concrete cutting contractor Arnessons Betongborrning. "But those contractors using uncertified and unsafe methods should not bother working in Sweden. New restrictions from the Swedish Working Environment Institute have strict regulations and if they are not obeyed it is going to cost."

Arnessons is taking down old and worn out balconies in Sweden and the neighbouring Nordic countries Norway and Denmark. But the need is greatest in Sweden. But one of the really big jobs during the autumn was in the Danish capital Copenhagen and Arnessons was hired to do the balcony demolition by Danish concrete cutting company Brandt Diamant.

A lot of demolition and drilling of holes

Brandt Diamant was commissioned in September to demolish 250 balconies in Ved Volden, Copenhagen. There were two Grade II listed buildings where the balconies should be replaced. The fine old brick buildings were built in the 1930s and balconies, built of concrete. "But now it was time to change," said Brandt Diamant joint owner Bjarne Pedersen.

Brandt Diamant's task was to take down the balconies and then drill a large number of holes, which would be used









to attach the new balconies. In total 1400 holes of 35mm diameter were needed and drilled to a depth of about 300mm. The new balconies will be in the same style as the old ones.

Initially it was originally planned to connect the new balconies using carbon fibre rods protruding from the boreholes. But the method was not considered sufficiently stable and instead stainless steel rebar was used. About half of the old balconies, which were demolished, consisted of a concrete slab with steel railings, while the other half were all concrete. Balconies with concrete and steel railing weighed about 0.5t, while concrete balconies were between 1t to 2.5t.

Specialised in demolition of balconies

The value for the whole project for demolishing the balconies and drilling the 1400 holes was estimated at EUR250,000. The demolition of the balconies was left to Arnessons, which

has developed its own patented method to demolish balconies safely, quickly and cost effectively. Arnessons former owner Kjell Andersson developed the method.

"There are now several different methods for the demolition of balconies, but none are as safe and efficient as ours," said Östervald. "Many accidents have occurred, sometimes fatal, when dangerous and unsafe methods have been used. Our method is not only patented it is also recognised by the Swedish Balcony Association." At the site Arnessons had an average of two men working during the 11 weeks of the demolition. In addition they hired a mobile crane, a boom lift and a telehandler. The crane lifted and fitted the patented and specially designed cutting jig on the balcony to be removed. Arnessons is using mainly high cycle wall saws from Husqvarna Construction Products for the saw cutting. When the jig was in position and locked the sawing could start. The crane keeps the jig in place





Above drilling the holes that will carry the new balconies.

Below the team in Copenhagne: From the left Lennart Österwald and Marcus Jacobsson from Arnessons. Billy Rasmussen, Brandt Diamant, Per Carlsson, Arnessons, Klaus the crane operator, Kenneth Jörgensen, Bjarne Brandt and Peter Gunst from Brandt Diamant.







PDi reports





against the balcony. When the balcony is cut it rests on the jig and can easily be lowered to the ground. The wall saw operator controls the procedure from the boom lift and does not need to set foot on the balcony. After the crane lowers the balcony the telehandler takes over and loads it for transportation to a site where it can be demolished and recycled.

"The work went like clockwork and proceeded extremely well," said Arnessons operator Per Carlsson. "On average, we have removed about 12 to 15 balconies/day and at best, we made close to 25 balconies in a day ".

Mobile crane operator important

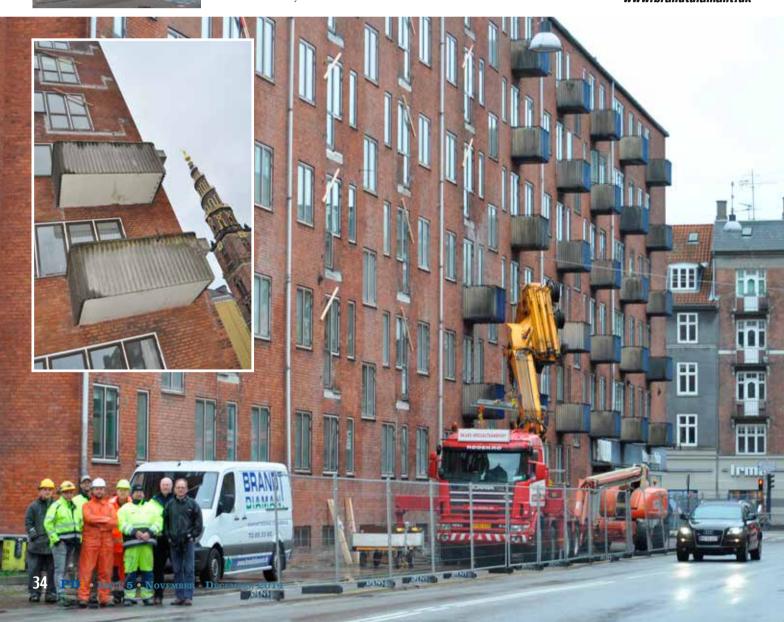
Demolishing the balconies is a very sensitive job. Those involved really need to know what they are doing as most of the job happens at a high level. In Copenhagen there were only six floors, but sometimes it is over 20 floors. Before the actual cutting takes place there is a lot of preparation of the balconies. First handrails and the fence of the balcony are cut loose with normally a tiger saw depending on the material. The actual cutting of a balcony only took 10min, but would depend on the size and balcony design. The mobile crane and its operator is a key factor in the whole process. He must hold the jig tight during the cutting and especially when the balcony is cut loose. To lower the balcony is also tricky, especially in confined areas. The streets around the buildings were heavily trafficked during the day. After the balcony was lowered the wall saw operators cleaned the area where the balcony was located with high-pressure water and firmly secured the balcony door.

Construction sector on the way up in Denmark

Brandt Diamant is one of Denmark's five largest concrete sawing and drilling contractors. There are about 70 concrete cutting companies in the country of which 40 belong to the Danish concrete sawing and drilling association. Bjarne Brandt has worked with concrete cutting from 1984 and since 1987 in his own company. The company has 22 employees and annual turn over of about DKK22M (EUR2.95M). Brandt Diamant has three branch offices, one on the island Sjaelland where Copenhagen is located, on the island Fyn and another on the island Lolland. After some years with recession the construction sector has started to pick up. "We've had some really tough years in Denmark where the market almost stood still. But now we see clearly that it started to pick up and the jobs are coming back. I think it will be really good in 2015," said Brandt. "There are many balconies in Denmark that need renovating." For Arnessons the autumn of 2014 has been exceptionally for orders. Parallel to and directly after the job in Copenhagen several similar jobs have been carried out in Stockholm, Piteå, Jönköping, Norrköping and Lidköping.

"The spring was fairly quiet for us but after the summer it took off and was hard to take on all jobs. When we started this business in connection with Demcon Exhibition in 2012, it was a pretty slow start since we first needed to promote our method on the market and with the concrete cutters. But now it has finally been accepted and I think we will achieve the sales target we have set for this year," said Östervald.

www.arnessons.se www.brandtdiamant.dk





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Quici lift

dsb innocrush for recycling

The German company Amann is a family-run contractor specialising in road construction, civil engineering, landscaping, sewer construction, and recycling and demolition work.

Invested to meet the demands for demolition and recycling operations

Amann needed a new state-of-the-art crusher to meet the demands of its recycling and demolition operations. Separation of materials into unmixed fractions and the recycling of valuable resources are priorities at Amann. For this purpose the company completed a detailed evaluation of suitable available equipment.

Following its industry search and a very close look at various machines, the company chose dsb innocrush. "I need machines that work reliably. The Innocrush 35 is a crusher without any unnecessary extras. Here they've concentrated on what really matters. The most obvious thing was the above-average capacity of the crusher," said Amann managing director Ferdinand Amann. "Other advantages are the main discharge belt that can be lowered, the good accessibility of all components, optimum ease of maintenance and, of course, the simple, but very well thought-out overall concept."

The Innocrush 35, driven by a 287kW CAT C11 diesel engine, is used primarily by Amann for crushing material for recycling. Weighing 34.8t, the crusher has a production output up to 350t/h.

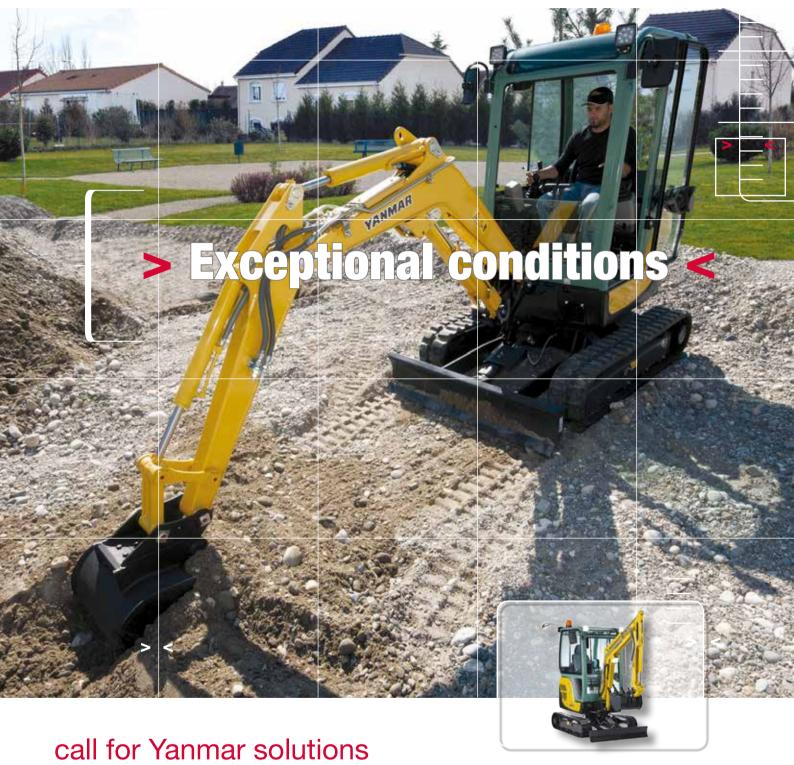
www.innocrush.com











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OQ-LockSupport from OilQuick for safe attachment changes

OilQuick LockSupport is a new driver support for safe and secure attachment switching on excavators and is available for all nine sizes of OilQuick fully automatic quick couplers.

Modern excavators are equipped with hydraulic quick couplers and use a number of buckets and attachments, which in many cases are switched several times an hour or day. There is always an element of risk of dropping buckets when switching attachments. The

reason in most cases is driver-related and can depend on many factors. These include work stress, non-standardised lock manoeuvring, difficulty in determining whether the attachment is aligned correctly and uncertainty in the position of the locking bolts. OQLS solves all these problems and gives operators safe and secure support when switching buckets and attachments.

www.oilquick.com



Hilti move into new Innovation Centre

The Hilti Corporation has completed its new Innovation Centre in Schann, Liechtenstein, and is another step in Hilti's intention to further strengthen the Schaan site as a centre of excellence for cutting-edge technology and highly innovative products.

"Differentiation of products and services will be a decisive competitive factor for sustainable business success." said Hilti director Stefan Nöken. "In our drive to further enhance our leading position, we must strengthen our innovative capacity. The multifunctional space will house 400 workplaces in offices, testing premises, laboratories and workshops. The physical proximity and the optimized process flow will result in more effective and efficient research and development work. Thanks to a flexible design of infrastructure, multiple work processes can be integrated in a creative environment that will allow our employees to develop innovative solutions with superior added value for our customers."

Now that the Innovation Centre is complete, Hilti will continue to invest in Schaan. From the start of 2015, the façade of the main building will be refurbished along with the modernization of technical facilities and security equipment. The following year will see a new layout of the main building's forecourt and there are plans to renovate the north administrative building with works expected to take place in 2017. The planned investment drive is a clear sign for the company's commitment to Liechtenstein as an industrial location.

www.hilti.com

LiuGong's 11th dealer conference

The Chinese equipment manufacturer Liu-Gong Machinery held its 11th global dealer conference at the Liuzhou International Exhibition Centre in Liuzhou, China, home of Liu-Gong. More than 500 dealer representatives from 80 countries, business partners, LiuGong leadership team, overseas management and staff gathered together for two days of meetings and celebration. The event for all LiuGong international dealers has been held annually since 2003.

This year, LiuGong focused on 'Moving to Our Future', and exhibited 50 machines from its 16 product lines. The annual conference is an opportunity for the company and dealers to celebrate the achievements in the past year, but also exchange opinions and ideas for the future.

www.liugong.com



Attendance for 2014 CSDA Hands-On Training Hits 100

In what has already been a banner year for the CSDA Training Program, the association is pleased to announce that 100 industry professionals graduated from its hands-on training and certification courses in 2014. This year, CSDA saw a 43% increase in attendance for its three training courses at World of Concrete from the prior year, and the Training Program reached a milestone of 4,000 graduates. With an additional two hands-on classes completed in October and Operator Certification courses held in November, CSDA can confirm that exactly 100 people participated in its 2014 hands-on training schedule—up 21% from 2013 and the highest annual attendance in the past eight years.

"The Operator Certification courses were well worth it for my guys. I am glad I got to chance to attend and see for myself just how informative and useful the courses were. Had I not taken this opportunity, I probably wouldn't have seen the value in them for my operators. Next year I will be sending more of my operators for certain," says Mike Luther, owner of CSDA member American Eagle Concrete Services in Orlando, Florida. Luther had three employees complete the certification courses in November.

Launched in 1993, the CSDA Training Program currently consists of 33 hands-on, classroom and online courses. Advanced Operator Certification courses were added to the program in 1995 and the association has partnered with St. Petersburg College Corporate Training for the past 13 years to provide these courses through an accredited educational facility.

"It is a very encouraging sign for the industry that many companies are once again investing in employee training programs that improve operations and benefit the entire workforce," says CSDA Executive Director Patrick O'Brien. "The recent successes of the CSDA Training Program show us that there is a growing interest in having an established, innovative training and certification program for the industry."

The next CSDA training classes will be held February 2-5, 2015 during World of Concrete in Las Vegas, Nevada. The association has scheduled an Estimating class, a Concrete Polishing class and a Hand Sawing & Drilling 101 class. For more information about these classes or others in the CSDA Training Program, visit www.csda.org

The Concrete Sawing & Drilling Association is a nonprofit trade association of contractors, manufacturers and affiliated members from the construction and renovation industry. Diamond tools for projects requiring sawing, drilling, selective demolition, polishing and imaging offers the construction industry many benefits including lower total project costs, precision cutting, maintenance of structural integrity, reduced downtime, reduced noise, dust and debris, limited access cutting and the ability to cut heavily-reinforced concrete. Founded in 1972, CSDA has 500 member companies worldwide.

www.csda.org



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Concrete Cutters and Contractors chose Hy

Hydrodemolition techniques are becoming increasingly common among demolition and concrete cutting contractors. PDi's Mikael Karlsson reviews some of the hydrodemolition equipment from Sweden and Finland.

Aquajet Systems AB

Aquajet from Sweden has recently launched the Aqua Cutter 410. The company defines the new hydrodemolition robot as a groundbreaking innovation, as it is currently claimed to be the world's smallest and most flexible hydrodemolition robot. The Aqua Cutter 410 has been designed for hydrodemolition applications in confined areas such as concrete sewer pipes in urban locations, small tunnels and inside buildings with restricted space. At 2.1m long, 1.07m wide and 0.78m high, the new robot can go through a standard door opening and operate inside a concrete pipe and on vertical, horizontal

or overhead surfaces. And weighing around 1t it can also operate from scaffolding.

Working typically with between 700 to 2500bar pressure and flow of 60 to 180litres/min the new robot can handle most concrete removal tasks on floors, walls and overhead applications. It can also replace many applications currently performed using hand held lances to provide a safer and more accurate operation.

The 410 robot features a number of tools including a rotor for surface preparation and working inside pipes, a

single lance with a 1.5m front shroud for surface removal and an hydraulically operated articulated arm with a reach up to 3m. A tunnel kit that can operate in tunnels up to 3m diameter and is based on the Aqua Spine system, which makes it extremely flexible as most of the Aqua Spine accessories can also be used. The tunnel kit also features automatic detection of the distance to the tunnel surface making it easy to operate in uneven or oval shaped tunnels.

The power control module can be disconnected from the tracked crawler. This allows the crawler to be driven into unfriendly environments, for example small tunnels suddenly flooded by heavy rain. In this mode, the PCM is connected to the track crawler by an umbilical cable and the removal process controlled remotely. This is ideal



d Demolition /drodemolition

when, for example, sewer pipes can be suddenly flooded. The work can continue and not be disrupted by the

Below Dynaset's new HPW 1000 hydraulic high-pressure water pump for hydrodemolition.

'Grand Innovation Award of the Year' at the recent Demcon show held in Stockholm in September. "We accepted the award with great reverence for our competitors and partners in the demolition industry. This is a testament to the way we think and how we build our products," said Aquajet representative Patrick Andersson.

> The first water recycling system for hydrodemolition

Conjet, also

water. The operator controls and monitors the operation by a remote radio controller, so the machine can be run from a safe distance ensuring complete control over the robot. Features of the proven Aqua Cutter 710 series of robots, such as the equal distance system, the intelligent sensing control, and smart lance system,

The new Agua Cutter 410.

have been updated and integrated in to the new 410 robot. It offers the same reliability, versatility and easy maintenance and low operating costs as the Aqua Cutter 710 robot, and uses

many of the same parts. In addition the Aqua Cutter 410 was awarded the from Sweden, is releasing the Conjet water recycle system, believed to be the first water recycling system designed specifically for hydrodemolition. The system is skid-mounted, and can be fitted inside a standard regular or insulated 20ft container, on a trailer or a truck, depending on customer preference. It is able to clean hydrodemolition wastewater to make it fit for recycling

back to the high-pressure pump. It can also just filter the water to soften the impact on the environment. It can filter up to 20m3/hm of water containing no particles above 5micron, and the pH value is reduced to 7 or below, making it neutral.

The new CWRS treats the water in two general steps. The first pre-treatment phase takes place in the basket housing of the pump and two special hydro cyclones. The outgoing water from this step will not contain any sand or particles nominally over 20micron, which can be released into the environment without causing pollution.

It is also possible to make the water fit for recycling back into the high-pressure pump. The second step contains two filters that are backwashed periodically. The back wash flow goes back to the container and is filtered through the coarser load. The outgoing flow will qualify for feeding the high-pressure pump, resulting in a significant reduction of water used in the hydrodemoli-

Earlier this year, Conjet also launched the new Robot 557 at the World of Concrete in Las Vegas. The machine represents a whole new design and technological thinking from Conjet and is built for a variety of applications. The robot weighs almost 3t and is equipped with

rubber tracks that have an adjustable width from 1.2m to 1.9m, making the robot tower very stable.

The design of the body and hood makes it easier and safer for the operator. Also the control panel has been remodelled and enlarged. Its placement provides easy viewing and access. Robot 557 is equipped with the new control system Conjet ONE, which is also incorporated in all current Conjet robots. The main concept of the new control system is that all configurations can be set from the radio remote control. All parameters programmed in

PDi special feature









pressure of 290bar.

which provides for an extremely compact unit weighing just 32kg. It is 408mm wide, 182mm deep and 161mm tall. The pump is powered by the hydraulic system from a carrier machine and does not need any extra power source. It is always onboard with the carrier machine and ready to be used. Requirements for hydraulic input of carrier machines are oil flow of 140litres/min and

Conjet Open House

In November hydrodemolition equipment manufacturer Conjet held an Open Day at their premises in Haninge outside Stockholm, Sweden. Contractors and representatives attended from 11 European countries. Conjet presented its equipment including the new Robot 557 and the new water cleaning system. Other existing models were also on display and demonstrated, such as the Nalta 101, Robot 327 and Robot 367. Concrete was demolished with the Nalta 101 and the new Conjet Robot 557. The new control and hydraulic system Conjet ONE was also demonstrated and is installed on all existing robots.

www.conjet.com



Case brings the rodeo to Eastern Europe

Titan Machinery Bulgaria, the official dealer of Case Construction Equipment in the country, has been awarded with a Gold Medal and Diploma for the best innovation in the 'Machine Building' category at the 70th International Technical Fair, held in Plovdiv from September 29th to October 4th. The award was conferred for the powerful Case 2050M crawler dozer, which took centre stage at the dealer's stand. For the occasion, Case Rodeo rode into Bulgaria for the first time, after the recent successful stop in Hungary.

A full line of innovative products

With more than 30,000 visitors and around 400 exhibitors, the Autumn 2014 edition confirmed the Plovdiv International Technical Fair as the largest trade show for investment goods and technologies in Bulgaria and one of the most prestigious in Southeastern Europe. In its stand, Titan Machinery Bulgaria created a friendly environment for visitors to discover Case's latest innovations and to consolidate the brand's position as a full line provider of construction equipment by showcasing a massive line-up of units from both heavy and compact lines. On display a selection of the latest Case excavators, including the impressive 30-ton CX300C crawler excavator, the 21-ton CX210C, the 158hp WX168 wheeled excavator and WX148 model. Visitors were also able to see first-hand the rugged 821F wheel loader and to familiarize themselves with the fuel-efficient Case tractor loader backhoes with the range-topping 695ST model, the reliable 590ST and the versatile 580ST backhoe loader. The range of fuel-efficient Case skid steer and compact track loader was displayed by the 49hp SR130 skid steer, the vertical lift SV300 model and the 90hp TV380 compact track loader.

Case strikes gold for the third time

For the third consecutive year, the International Technical Fair awarded Case and Titan Machinery with a Gold Medal and Diploma for the best innovation in the 'Machine Building' category, assigned to the powerful Case 2050M crawler dozer. The awards are given annually during the fair to products that distinguish themselves for innovation and technological excellence in their respective categories. Case won the award also in the last two previous editions with the 721F wheel loader and the Tier 4i 580ST tractor backhoe loader, respectively in 2012 and 2013. The Gold Medal and the Diploma were handed over to Veslin Ivanov, Construction Equipment Business Manager for Titan Machinery Bulgaria, during the award ceremony held on October 2nd. With headquarters based in Sofia, Titan Machinery Bulgaria is part of the giant US company Titan Machinery, the world's largest Case Construction Equipment distributor.

Ropes in visitors with the Rodeo

For the first time ever, the Rodeo rode into Bulgaria and made a stop at the Titan Machinery's booth in Plovdiv. The competition engines powered up on October 3rd when 11 contestants coming from all over the country lined up to confront each other in a three-round series of highly-technical challenges designed to test their skills and to crown the best national operator of construction equipment. In the first time trial, operators had to

demonstrate their ability to precisely control a backhoe loader while picking up a number of balls to score baskets. The second challenge was not less attractive: they had to use a mini excavator for popping colorful balloons. In the last time trial, operators were asked to pour some water into small glasses by using a massive 21-ton excavator.

After a hard-fought battle on the edge of seconds, Deyan Deyanov was awarded the first Bulgarian Case Rodeo gold medal with an incredible combined time of 5' 12". Tsvetan Georgiev secured the second place with a 5' 46" time while Yassen Velchev got the third place with a 5' 55" result. The three operators will have the honor to represent their own country and to compete against other national winners coming from all over Europe, Africa and the Middle East at the Case Rodeo Final, which will be held from October 24th to 26th in Paris.

Case Rodeo in Hungary

With the final approaching fast, Case Rodeo moved quickly across Eastern Europe. From September 18th to 20th, the competition was successfully hosted by Dynamic JT, the new Case dealer that was appointed last year in Hungary. With an overall score of 0:37.84, Tibor Somogyi climbed the highest step of the podium and was recognized as the country's best operator among 24 contestants. Second and third places went to Gábor Barta and Csaba Major, with a score of 0:38.04 and 0:40.12 respectively.

The Rodeo was held in Budapest during the Open Days, organized by Dynamic JT to promote the brand and to present the full range of Case construction equipment to selected prospective customers.

> www.casecetools.com www.cnhindustrial.com





Komatsu's HM300-5 articulated dump available in Europe

Komatsu Europe International has introduced the Komatsu HM300-5 articulated dump truck to the European market. The 28t load carrying capacity truck, which has a 17.1m³ capacity body, is powered by a 242kW Komatsu SAA6D125E-7 engine certified to EU Stage IV emissions.

The HM300-5 is equipped with the lat-

est Komtrax remote monitoring technology with data access through the Internet or by Komtrax mobile on a smart phone. In addition to providing data, such as fuel levels, operating hours, location, cautions and maintenance alerts. Komtrax has been

enhanced to monitor AdBlue levels and diesel particulate filter regeneration, and to provide fuel theft alerts. A new operator identification system reports key operating information for

multiple users.



Sandvik's new crushers

Sandvik Construction has launched the new CI531 primary and CI532 secondary, Prisec 3 horizontal shaft impact crushers, which have been developed to deliver exceptional rates of productivity and efficiency. The two crushers offer customers benefits and advantages of low operating costs combined with patented technology. As with the rest of the Prisec range the new crushers can be configured into either primary or secondary crusher operating mode. Additionally single stage crushing is also a possibility to recirculate material to the primary versions of the crushers.

Sandvik's new crushing chamber design ensures even greater reduction ratios than previously obtained. They are also able to produce impressive reduction ratios through the use of two curtains, which have traditionally required a three curtain configuration crusher. As well as enhanced productivity, this means fewer wear parts and reduced

The CI531 and CI532 crushers are equipped with an infinite hydraulic curtain adjustment combined with a brake positioning system, which relieves pressure, and setting, when un-crushable objects enter the crusher. No hydraulic power is required during normal operation, thus reducing total power consumption. Both first and second curtains are infinitely adjustable by Sandvik's patented adjustment / braking system, which is located on the crushers' cross beams. This system gives hydraulic adjustment of both curtains, by the standard supply electric hydraulic power pack.

Crusher blockages, which have always been a problem, are now eliminated with the new generation Prisec 3 crusher. Due to the crushers' features stopping them is not necessary.

The rotor and hammers are the heart of the crusher and have superior weight and design for delivering the high inertia required for optimum crusher performance The banana shaped self-sharpening hammer design helps to keep the contact heads sharper during operation, resulting in more

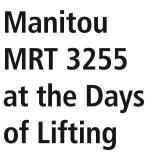
effective shearing of the incoming material, and improving production.

A safety interlock system ensures safe maintenance of the crusher and prevents accidental opening of the crusher and inspection doors even in multiple installations. It also allows the ability to raise curtains during operation, and re-set automatically to operating setting. This increases uptime and reduces the need for heavy lifting gear and operator maintenance intervention.

Through the modularized nature of the Prisec 3 range, wear parts with the same size can be used across the whole range of crushers. In addition, Sandvik's hammer and liner material composition provides options far surpassing old industry standard of manganese, resulting in even lower operating costs and the ability to operate efficiently in a variety of materials, especially recycling applications.

Materials handling equipment manufacturer Manitou participated in the Days of Lifting held in Marseille, France in October. The company presented its new telescopic truck, the MRT3255, during the show devoted to professionals in lifting, materials handling, port handling and exceptional transport. The MRT 3255 has a working height of 32m and a nominal capacity of 5.5t. It was also the occasion for the European launch of the new heavy telescopic truck, the MHT 1490, which has a 9t capacity and can lift to 14m.

"As capital equipment that is essential on work sites, our machines contribute to the profitability of construction professionals, whether small or large," said Manitou, sales manager for France Denis Ruf. "In a complex and volatile economic context, we lack visibility. Our presence at professional exhibitions of this type lets us directly talk to our clients and take the time to discuss their requirements for material handling solutions. The MRT 3255 is an innovative solution to their requirements."













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Efficient tunnel reco outside Brussels usi hydrodemolition eminment

To close the Biéreau tunnel completely was not an option due to high public transport demands in the urban area.



Bageci project manager Luc Bosmans.

46 PDi RSUS 5 • NOVEMBER -

The Belgian railway operator,
Infrabel, urgently needed to repair
defective concrete in the Biéreau
tunnel just south of Brussels.
Hydrodemolition with a Conjet
Robot 365 was used to selectively
remove the damaged and decaying
concrete at record speed. Mikael
Karlsson reports.

The 875m long, 10.5m diameter Biéreau tunnel forms part of the 4.4km long dual Line 161D railway track linking the cities of Ottignies and Louvain-la-Neuve, 34km south of the Belgian capital Brussels. It was opened in 1975 and during its near 40 years of service, the tunnel's concrete skin had deteriorated and parts were falling off. It needed urgent repairs and Belgian railway operator, Infrabel, has invested more than EUR4M in the tunnel's restoration.

Restoration work while tunnel were in use

Closing the tunnel completely was not possible due to public transport demands in the urban area. So it was decided the

only option was to restore the tunnel in two sections and working and repairing the concrete from one track while trains passed by slowly on the other line. The restricted space and necessary safety and environment precautions were critical considerations for the overall renovation project, which had to be completed in just 220 days.

Due to these restrictions, the restoration contractor Bageci, a regional branch of industrial Belgian Group CFE, opted for the hydrodemolition technique, which uses a very high-pressure water jet to selectively remove the defective concrete from the walls and roof. Bageci bought a Conjet Robot 365 with multipurpose arm and a specially adapted feedbeam, carrying the jetting lance, to fit the curvature of the tunnel wall. Conjet's representative in Belgium, Bpc International, sold the hydrodemolition equipment. The company was also responsible for service, support and spare parts supply to guarantee 24h productivity and availability of the Conjet robot.

Hydrodemolition methods the only option

A 500kW Hammelmann S1200-48 high-pressure water pump and the Conjet Robot were installed on flatbed rail wagons fitted with foldable, protective walls. This allowed the hydrodemolition and restoration work to be completed on one side of the tunnel while trains could still pass on the opposite track.

"Due to the special safety and environmental demands and lack of space, hydrodemolition was really our only option from the very start," said Bageci tunnel project manager Luc Bosmans. "We thought it was going to be the most productive method for this tunnel work, and it proved to be very efficient."

In total, the Conjet Robot 365 together with the Hammelmann pump, operating up to a pressure of 1200bar, worked 1,370h in the Biéreau tunnel and selectively removed 1,610m3 of defective concrete from the tunnel circumference

very project ng Conjet

at an average depth of 80mm to 100mm. The total area treated was approximately 17,000m2.

Bageci also removed the concrete debris, damaged rebar and applied new high quality concrete on the tunnel lining. "This restoration has been completed in 220 days with the Conjet Robot demolishing and removing concrete at a rate of about 1.35m3/h. In my opinion this is an excellent result," said Bosmans.

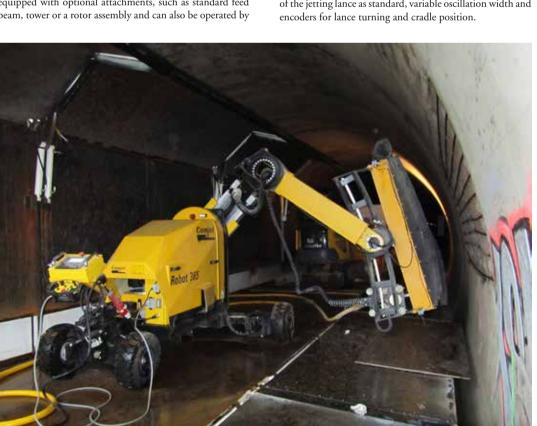
"Throughout the tunnel the concrete has been harder and more resistant in some places, but with the auto regulation the Conjet robot selectively demolished and removed only the damaged concrete to the right depth over the entire surface," said Bageci site manager Sandro Bonsiambiante. "Another advantage is the high availability of the equipment. There is a lot of environmental dust and wear and tear on equipment in this kind of application and the spare parts supply has been excellent with no serious break downs."

The Conjet Robot 365 consists of a carrier that includes pulse monitored drive wheels, electric and hydraulic systems and a simple, easy to use control system. The carrier can be equipped with optional attachments, such as standard feed beam, tower or a rotor assembly and can also be operated by



The Belgian railway operator, Infrabel, invested more than €4M to restore the 875m long Biéreau tunnel.

wireless control. The cutting head features a 45° attack angle of the jetting lance as standard, variable oscillation width and



The Conjet Robot 365 with multipurpose arm and specially adapted feedbeam to fit the curvature of the tunnel wall.



The Conjet Robot 365 has worked 1.370h in the Biéreau tunnel and removed 1,610m3 of defective concrete to an average depth of 80mm to 100mm.







The Conjet Robot has removed defective concrete at the rate of 1.35m3/h.

Betag-Betontaglio: L-ROUNDE

Betag-Betontaglio is one of Switzerland's biggest and most experienced specialist contractors. Having clocked up 35 years in the business of concrete cutting and selective demolition, the company, based in Cadempino. is now going stronger than ever. PDi's Andrei Bushmarin reports.

Cadempino, which is sandwiched between the mountains and the picturesque Lake Lugano, offers all the natural scenic beauties Switzerland is famous for. It is not for nothing that one of its neighbouring municipalities bears the name Paradiso. It was in this idyllic setting that Peter Hochuli founded Betag-Betontaglio in 1979.

A bank job

It is almost a rule in the concrete cutting business that most people get into it by accident. Peter Hochuli was no exception. And this being Switzerland, the accident, or rather a fortuitous twist of fate, happened in a bank.



Hochuli, who was an employee of the UBS banking empire at the time, saw a company use concrete cutting and drilling machinery to re-configure vaults in his branch. It was then and there that he decided to bank on concrete sawing techniques.

The idea man

With only two operators and two pieces of concrete cutting equipment supplied by US based Longyear, Hochuli embarked on his new career as a professional cutter. He could not choose a better time to launch his enterprise. In the early 1980s, concrete sawing and drilling techniques were cutting edge.

Having only five rivals to compete against in all of Switzerland, Betag-Betontaglio soon established itself as the market leader. Hochuli's previous background as a mechanical engineer and construction site manager certainly played a part in his company outrunning the competition. As did his knack of devising tailor-made machines when conventional equipment failed to live up to the task.



Sustainable growth

As golden as the 1980s were, they were not the only productive period in the history of Betag-Betontaglio. In fact, the company never stopped growing. Even the 2008 banking meltdown did little to disrupt its progress. In the early 1990s, Betag-Betontaglio made the step up to international level, establishing a subsidiary in Varese, Italy.

Specialist contractors rarely venture outside their home region, let alone their country, but the company's reputation helped it win international contracts on a regular basis. Usually the Swiss contractor performs one or two overseas jobs a year, with the roster of countries where Betag-Betontaglio has already made its cut include Italy, Spain, Greece and Morocco.

On the home front, things are going equally well. Besides the headquarters in Cadempino, Betag-Betontaglio opened another three depots in different parts of Switzerland and expanded its staff to 35 operators. Another five people, including Hochuli and his son Stefano, coordinate the company's operations.

Betag-Betontaglio commands an extensive arsenal of





RWITHANANGLE



sawing and drilling equipment, counting 35 core drilling systems, 24 wall saws and six automatic wire saws. High frequency equipment from Tyrolit Hydrostress, Hilti, Pentruder and EDT Eurodima accounts for, at least, one third of the inventory. If a project requires selective demolition, Betag-Betontaglio also has two Brokk robots to call on.

The hydrodemolition angle

With decades of experience in concrete cutting and selective demolition, Betag-Betontaglio is a complete all-rounder. But there is an angle to its profile, a set of special skills, which makes the company stand out, even among the most professional competitors. About five years ago, Betag-Betontaglio won a contract to renovate a parking deck in Lugano with an area of 9,000m². For this project, hydrodemolition was specified as the most appropriate technique. Never the one to stop learning, Betag-Betontaglio purchased a Conjet 324 hydrodemolition robot from the local dealer for the contract. Following that project, Betag-Betontaglio began to increasingly

focus on hydrodemolition and underwater cutting jobs.

The Gela project

In the late 2006, Betag-Betontaglio completed a very challenging job in Sicily, and is a prime example of its expertise in underwater demolition. When waves destroyed three blocks of the breakwater that protected Sicily's largest refinery in Gela, Betag-Betontaglio was contracted to help replace them. Built in the shape of a semi-circle, the 1.2km long breakwater was about 2.7km off the coast. A 2.5km bridge provided access to most parts of it, but the last 200m were only reachable by boat. The breakwater was built of reinforced concrete sections, each 14m to 20m long and 15m high. Every section contained about 20 cells filled with sand as ballast. The scope of work specified by the general contractor included demolition of the structures above the water with a concrete crusher, emptying the cells of sand and debris, cutting underwater structures at a depth of 9.5m into blocks of not more than 90t, transportation and installation of the new blocks and reconstruction of the parts above the water level. BetagBetontaglio was tasked to execute the underwater part of the project. The first step involved site preparation in the conditions of extremely limited space. Since the existing infrastructure had been damaged, the electric cables and water lines had to be laid out first. Having set up the cutting equipment, Betag-Betontaglio's specialists started to wire saw the breakwater's underwater structures. Due to adverse weather conditions, including two metre waves, the work had to frequently stop. Sometimes water movement was so strong it even tore the wire saw off the rails. To remove the cut blocks, 250mm rigging holes were drilled into them using a fully hydraulic drilling system. Having been mounted underwater by divers, the system was operated by the company's professionals from the breakwater. Once the cutting was completed, all the elements were hoisted and taken away by a 200t Liebherr crane installed on a workboat. The project was fulfilled to the complete satisfaction of the specifier and allowed Betag-Betontaglio to gain a unique experience in underwater demolition.

www.betontaglio.com







Less growth and stability for the grinding and possible of the grinding and grindi

The global concrete floor grinding and polishing industries are consolidating.

These sectors, which overlap in some markets, overheated several years ago, but are now back to a normal level.

PDi's Jan Hermansson reports.

Concrete floor preparation, which is the removal of different kinds of coatings and grinding uneven concrete floors, is mainly performed by concrete cutting and demolition contractors, particularly in Europe, the US and Australia. The trend is continuing all over the world where more of these types of contractors are taking on this service. There is also a growing interest for floor preparation in China. The reason is simple, as these contractors are already on sites and it is quite easy for them to offer these additional services, besides concrete sawing, drilling and demolition. Also many national branch associations are now organising seminars and training for concrete floor preparation tasks.

Focus on polishing

The other industry related to treatment of concrete floors is the concrete polishing industry and is more diversified. The biggest group of contractors offering polished concrete floors are specialized flooring companies. They handle the floor preparation, as well as polishing the concrete floors in up to eight or nine steps to deliver a finished concrete floor. There are a

few concrete cutters that offer the whole package of floor preparation and polishing. But even in Sweden where this started you seldom see concrete cutters polishing concrete floors. Still the strongest market for concrete floor polishing is the US. These sectors have grown quite large and the biggest manufacturers of concrete floor grinding and polishing are all well established in the US. There are now several bodies developing the US concrete floor polishing industry like the Concrete Polishing Association, The Concrete Polishing University and the International

Concrete Polishing and Staining Conference. But there is a steady trend for expansion of concrete floor polishing also in Europe, Australia, South America, Middle East and parts of Asia with China as the leader. A region that has not shown any particular interest for either floor preparation or concrete floor polishing is India.

Hastens slowly

The potential for floor preparation and concrete polishing is huge with billions of square metres of



d more concrete floor lishing sectors

concrete floors around the world that need floor preparation or polishing treatment every year. But still there is a question of convincing architects to choose polished concrete floors as a final product instead of conventional floors. This is a mission that is slowly working its way through the world's markets. Concrete floor polishing is initially a more time consuming method as a concrete floor needs to be polished in up to eight or nine steps, depending on the chosen method. But once these steps have been made a polished concrete floor can last up to 20 years

with very easy, cost effective and environmentally friendly maintenance.

An epoxy floor is far cheaper to add, but it needs to be replaced at least four times during the 20 years a polished concrete floor will last. The maintenance work is also more complicated and expensive for an epoxy floor. The quality is also much higher with a polished concrete floor and the appearance cannot be compared with other floor types, except granite or marble. Currently with the different types of staining techniques a polished concrete floor can look like a

stone floor, but at a cost that is maybe 25% that of a stone floor. In this perspective a concrete polished floor is a perfect and cost effective flooring solution in the construction of new buildings and homes.

This year the industry has seen a number of new machines and tools launched for concrete floor preparation and polishing and cover some in this feature.

News from Husqvarna Construction Products

Husqvarna Construction Products has released three







new floor grinders the PG 280, PG 400 and PG 450. The PG 280 is a single disc floor grinder that is easy to convert for edge grinding on both sides. It grinds adhesives, paint, epoxy and filler. With a grinding width of 280mm it is suitable for small to medium concrete areas. It is available in both 1- and 3-phase versions. Designed to facilitate an ergonomic work position, it is easy and convenient to use. The machine is light and compact and therefore easy to transport and set-up.

PG 400, also a single disc grinder, is versatile and very pro-

ductive for a wide range of

applications. With its 400 mm wide grinding width it efficiently grinds adhesives, paint, epoxy and filler on medium to large concrete areas. The PG 400 is easy to transport due to its compact and foldable frame. The machine is

designed to facilitate an ergonomic working position and is easy and convenient

to use. The PG 450 is a versatile and user-friendly planetary floor grinder and is ideal for a wide range of applications. It can also be used for making Husqvarna's own concrete floor polishing system Hiperfloor. With its 450mm grinding width it is ideal for both small, hard to get to areas, as well as larger surfaces. It is ideal for rental and both professional and semi-professional applications due to its many self-adjusting benefits. Single-phase means it is suitable for industrial and domestic applications. It can easily be folded without tools for transport and storage.

www.husqvarnacp.com

News from HTC

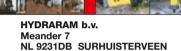
HTC has gone through management transformation and is covered in detail on pages 56 and 57. HTC has just launched HTC Cure+, which is the next generation of HTC Cure. HTC Cure+ improves concrete qualities and enhances the surface when grinding HTC Superfloor. HTC Cure+ can also be used on other mineral materials such as cement-stabilised overlays and terrazzo. The solution contains more lithium, which gives a better effect and a stronger floor. The solution is also more concentrated and is applied later in the grinding process, as a result of which less densifier will be ground off during the

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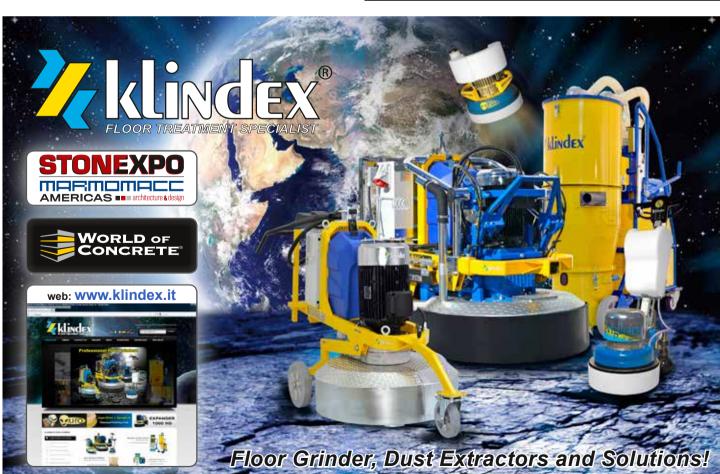




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PDi special feature

remaining grinding/polishing steps. HTC Cure+ can also be used as a finishing treatment for concrete floors.

The new HTC Ravager tools create a bush hammered profile, which is ideal for high traction exterior surfaces. It has an extremely high stock removal capacity and can remove rigid or brittle coatings up to 10mm thick. The tools can also be used to repair a failing cap on concrete or a slab. HTC Ravager tools mounted on a HTC grinding machine can also achieve a standard surface preparation profile equivalent to International Concrete Repair Institute's Concrete Surface Profile standard of 6 to 7 using an HTC grinder. The grinder leaves a bush hammered profile perfect for high traction exterior surfaces, exposes large aggregates in as little as one pass and removes rigid or brittle coatings and overlays with ease

www.htc-floorystems.com

New Waterfire hand grinder from Klindex

Italian manufacturer Klindex is launching a new hand grinder, called Klindex Waterfire with an adjustable head for corners, edges, countertop, skirting, stairs, skirting and joint chaser.

Klindex WaterFire is the ideal machine, according to Klindex, to achieve a perfect polishing of countertop, shelves, tables and narrow

It can be used as a concrete or marble edge grinder, as well as a stairs bush hammer and as a joint chaser due to its extra accessories.

It is the only hand grinder with IP54 water and dust proof protection in the world. It has an asynchronous and lasts longer when compared to a traditional motor. The gears and bearings are compared to a traditional hand grinder. It has the possibility to be supported by a wheeled cart to achieve a perfectly flat surface. It is fitted with a front led light to check the working area. It has a rotating head feature for joint chasing applications. It has a speed switch for grinding and polishing and can be used for wet or dry grinding operations when equipped with a water nozzle.

www.klindex.com

News from Xingyi Polishing Machine of China

About a decade ago the global concrete floor grinding and polishing market saw a huge number of brands launched at exhibitions all over the world. Many of the brands were manufactured in China but not necessary sold under the manufactures' names. Now it is different. Many of the Chinese machines have disappeared making space for a few stable Chinese manufacturers selling their own products.

One of these is Xingyi Polishing Machine located in Quanzhou, Fujian in the south eastern part of China. Xingyi has over 30 different models for floor grinding and preparation and about seven different polishing machines. Their machines



and systems are suitable both for concrete and stone floors. Xingyi also manufacturers diamond tools for grinding and polishing, different kinds of chemicals and has three dust extracting models. The products are certified according to CE, SGS, TÜV and ISO9001 standards.

The company was founded in 1999 and the production of machines and tools for floor grinding and polishing started the same year. Xingyi sell their products all over the world and has sole agents in

Japan, Korea, Hong Kong, Vietnam, North America and all countries in the

Middle East and Brazil. They are also attending a number of exhibitions every year both in China and abroad and will exhibit at next year's World of Concrete. Each year they also organize their own conocrete polishing seminars at their own premises.

Recently Xingyi released a new line of floor grinder called HTG, short for

Adjustable high tech grinder. The series contains five models; HTG-500, HTG-600, HTG-700, HTG-777 and HTG Twin head high-speed polisher. The grinding diameter spans from 4x280mm to 4x380mm. The machines weigh from 160kg to 450kg. Motor speed is 350 to 1950revs/min and the gearbox rotating speed ranges from 140 to 840revs/min.

www.xy1118.com

Major concrete flooring project in San Diego

In May 2013 the Jim Sander Company of El Cajon in California, US, was approached by a realty company and Harley Davidson to look at a very old 4,650m2 World War II aircraft and turbine manufacturing plant in San Diego. The floor

had black mastic, epoxy, metal shavings and oil impregnated in it, 1/8 to 1/2 floor erosion and hand size spalling.

The customer's first thought was to replace the concrete, but Jim Sander offered a grinding solution





that could save them \$700,000 (EUR565,000). Jim Sander went to work and dustless removed an average of 9mm of concrete using a Terrco Model 6200 selfpropelled floor grinder fitted with 24, 16/20 grit 4 9mm cup wheels tethered to a 57m3 vacuum. They filled 15, 9m3 dumpsters with dust.

Once the floor was levelled they patched the spalling and polished to a 200 grit with Retro Plate. The customer asked if Jim Sander could enhance the main 3,437m2 showroom. They final polished the 1,207m2 warehouse area to an 800 grit finish and then went to work on something big and unique for the main showroom.

They chose an old Patriotic Army Air Corps Insignia, which consisted of a 26m White Star and 46m stripes of Retro Plate Patriot Blue and Budweiser Red Dyes. The layout was done from the centre outwards with a string line and a black sharpie. Then all the black layout lines were cut with a dustless 178mm diameter saw 9mm deep to get a clean non-bleed line. This was also finished to an 800 grit and burnished.

www.terrco.com

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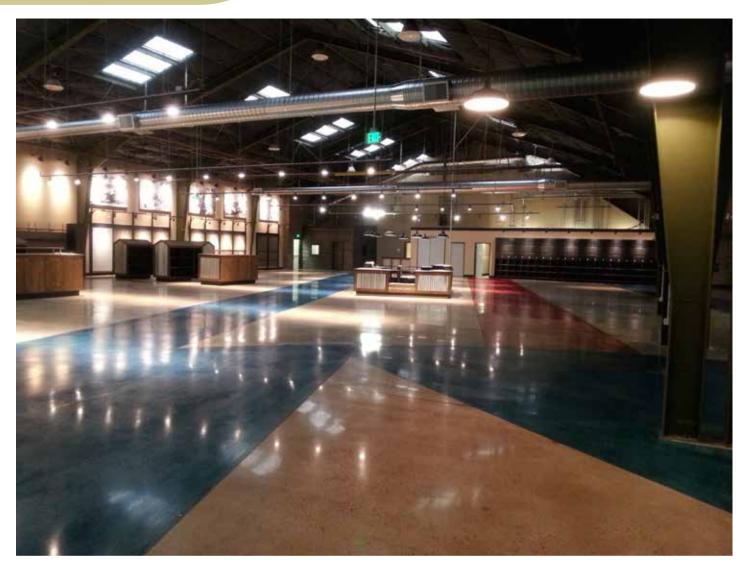
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PD*i* reports





Unique building project on the bank of China's Yellow River

Chinese concrete floor grinding and polishing contractor Shanghai Hefule Energy-saving and technology use Husqvarna Construction Products equipment and the Hiperfloor system. The company was hired for a major concrete floor grinding and polishing project at the new tourist service centre of the Yellow River Estuary Ecological Tourism Zone in Dongying, Shandong in the Eastern part of China.

The facility was built to USGBC LEED Gold Standards, achieving more energy reduction and less disruption to the environment, as its main goals.





PDi special feature

The walls are built with multi-layered reinforced earth. With this type of wall the question occurred how the floor should harmonise with the walls. The building contractor recommended using tiles or self-levelling underlay to decorate the building, but the client refused this proposal. When Hefule took over and discussed with the architects they proposed using polished concrete floor, which Hefule saw as the best choice. Hefule's proposition of using polished concrete floor was more cost effective and environmentally friendly.

Many advantages

Hefule finished the whole project one month before the opening in October 2014. About 2,695m² of concrete floor had been polished with 1500 grit using the Hiperfloor method. This included the pouring and













the polishing of concrete. Hefule used local bluestones in the concrete along with the Hiperfloor Premium system of 1500-grit resin diamonds, to produce an aesthetically pleasing and durable floor. Polished concrete floors are also efficiently heat-insulated in summer and act also as a heat source in winter. This also reduces the need for artificial heating and helps create airflow through the building.

www.hiperfloor.com



They invented shotblasting





TRIPLE DISC GRINDING





SCARIFYING

Blastrac invented the first mobile shot blast cleaning machine in the early 1980s. Since then, the company has evolved a comprehensive range of equipment to prepare any floor and surface. Blastrac now has the biggest range on the market with more than 50 different surface preparation machines

May things interact

With many years of experience and close relationships with its customers, Blastrac knows that just one technique does not do the job if surface preparation is done in the correct manner. This means that the finished result looks good, but also means lower expenses on tools and valuable time, and lower maintenance costs in the future.

In a lot of cases just one surface preparation technique can be used, depending on the required result. Whether it is a scarifier, shot blaster, grinder or steel blaster, each Blastrac technology has its own unique benefits.

Scarifying for difficult coatings

With scarifying, cutters are loosely fitted on lateral shafts, which are then placed inside a drum housing. The drum is placed inside the machine and once the machine is switched on, the rotating drum generates centrifugal force, which throws the cutter at the surface, causing a mechanical cutting action. Scarifying is ideal for removing glues, rubber, and other difficult coatings and hard and thick layers of concrete and asphalt.

With shot blasting, a large amount of steel abrasive is thrown against the surface by centrifugal force. After the abrasive hits the surface, it is recycled by the machine. Dust and contaminants are removed by an air wash separator and are removed to a dedicated Blastrac dust collector. This technique makes it perfect for cleaning surfaces before applying a new coating, removing old coatings, thin line markings and rubber skid marks and retexturing surfaces to improve skid resistance.

Single disc grinding

With single disc grinding, a disc with diamond and metal bonding is attached to the head of the machine and rotated at high speed. The combination of the single disc, together with the head pressure divided over one disc, makes this technique ideally suited to heavy-duty grinding jobs such as levelling uneven surfaces, without having to remove too much material, and removing thick layers of old paint, coating and glue.

Triple disc grinding

With triple head grinding, the machine has a planetary rotation system with three separate grinding plates. The head moves in the opposite direction of grinding plates, creating high friction with the surface while covering a large area. Together with the adjustable pressure this technique is ideal for cleaning surfaces before applying a new coating and polishing surfaces of different kinds of stone materials. In most cases contractors prefer to use a combination of these techniques.

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Dr. Schulze offers a one-stop solution for any surface preparation tasks

With a 30 year track record Dr. Schulze enjoys a well-deserved reputation as a manufacturer of concrete cutting machinery and diamond consumables. But a few years ago, the German company took a bold decision to venture outside its comfort zone in pursuit of diversification. Andrei Bushmarin reports.

The surface preparation industry has been on the rise in the past decade. It kept growing even through the 2008 economic landslide and the aftershocks that rattled the construction business for another couple of years. Having eyed this market for a while, Dr. Schulze finally decided to jump on the surface preparation bandwagon. The company's first machines were unveiled at Bauma 2013, and by late 2014 Dr. Schulze had built a comprehensive line of concrete grinding and polishing equipment.

Comprehensive portfolio of machines and tools

Dr. Schulze's surface preparation range comprises single and multi-head grinders, single-head polishers, milling machines, vacuum cleaners, dust collectors and chemicals for concrete. Instead of the conventional drive belt, all multi-head grinders come complete with an oil bath maintenance free gearbox that ensures reliable smooth operation while generating less noise.

The machines feature the magnetic tool clamping system DRS-LOCK that permits users to change tools within seconds. Dr. Schulze's bestselling model, the four-head grinder DBS-620-4H, has been designed to make it applicable for any surface treatment task, from levelling out large irregularities to fine polishing. The extensive experience the

German company has accumulated in the field of diamond consumables allows it to complete its product line with an ample choice of metal, resin and PCD based grinding and polishing tools. The highlights of the Dr. Schulze surface preparation range include the following:

DBS-820-3H

Weighing in at 500kg, the three-head DBS-820-3H is the





PDi reports

company's signature planetary grinder. With a working width of 800mm and an electric adjustment system, which allows the operator to control pressure the tool exerts on the surface being treated, the DBS-820-3H is optimized for large projects. Optionally, the machine can be fitted with a wireless remote control and a laser guiding system for surface levelling.

The DBB-700 Burnisher

The high-performance polishing machine DBB-700, also known as the Burnisher, is one of the latest additions to Dr. Schulze's surface preparation range. Designed for high-speed polishing of stone and concrete surfaces, the DBB-700 boasts a universal coupling and fibre-based polishing pads with impregnated diamonds. The machine is equipped with a 7.5kW electric motor, reaching a top speed of 2,500 revs/min. When treated at such high engine speed, the surface gets heated, which accelerates the reaction between the concrete and the lithium-based densifier, boosting the gloss, hardness and stain resistance of the resulting surface.

Twin-drum milling machine DBF-250-TWIN

Also new from Dr. Schulze is the twin drum milling machine DBF-250-TWIN. Each drum, positioned one behind the other for maximum productivity, is powered by a separate electric motor. The sequential position of drums allows for the option to simultaneously use the front drum for stripping of old coatings and the rear one for concrete milling. This halves the time needed for restoration of epoxy-coated surfaces. A stepless drive system ensures smooth operation of the DBF-250-TWIN.

DRS-HybridMaster-Concrete tooling

Diamond tools have been Dr. Schulze's core expertise since day one. The company operates three plants in Germany, which gives it the advantage to supply diamond consumables tuned to a specific project. On top of conventional metal and resin based tooling, Dr. Schulze offers a new type of pad called DRS-HybridMaster-Concrete. As evident from its brand name, they use a hybrid metallic and polymeric base, which allows the removal of scratches that metal based grinding tools often leave.

Lithium based densifiers

The manufacturer attaches particular importance to lithium based densifiers, believing them to be one of the most crucial elements of every high-quality concrete floor. By reaching deep into the concrete, lithium densifiers create a wear resistant uniform mass that prevents oil, water and various contaminants from getting inside the floor. They also make the floor dust free, easy to clean and maintain. Reinforcing floors with lithium based densifiers is a viable alternative to using epoxy or corundum, as a protective layer, because it does not entail the danger of the layer being peeled off the base later on. Another advantage of lithium reinforced floors is the possibility to renovate them while still using the premises.

www.dr-schulze.de





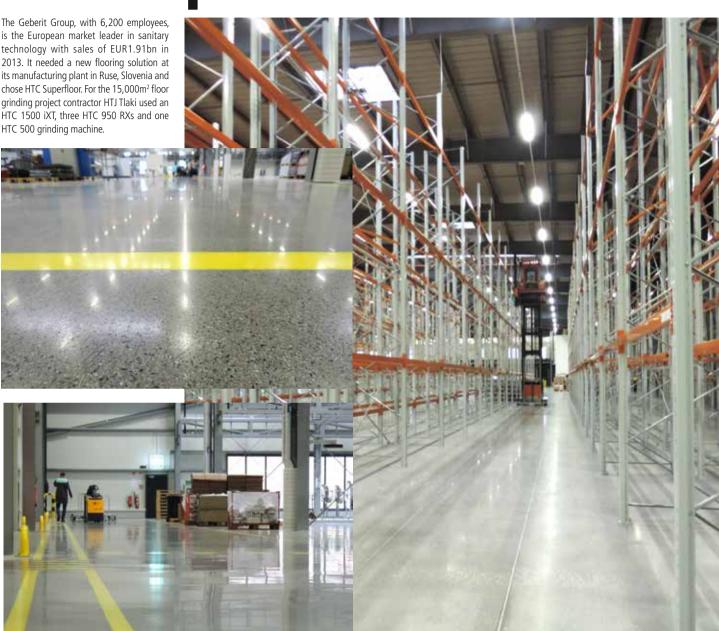
Above a polishing pad from Dr. Schulze. Below samples of concrete treated with lithium based densifiers







HTC Superfloor in Slovenia





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Avant Robot drills under historica Finland's National Library, in the centre of the capital Helsinki,

is undergoing an extensive renovation, and the largest repair for the building in its 169 year history.

The renovation started in November 2013 and will last for two years. In addition to an interior conservation, the first floor is being expanded with extra rooms as well as space for heating, ventilation, air conditioning and other building service equipment. The first floor stands on top of granite bedrock, which requires 500m³ of rock to be removed.

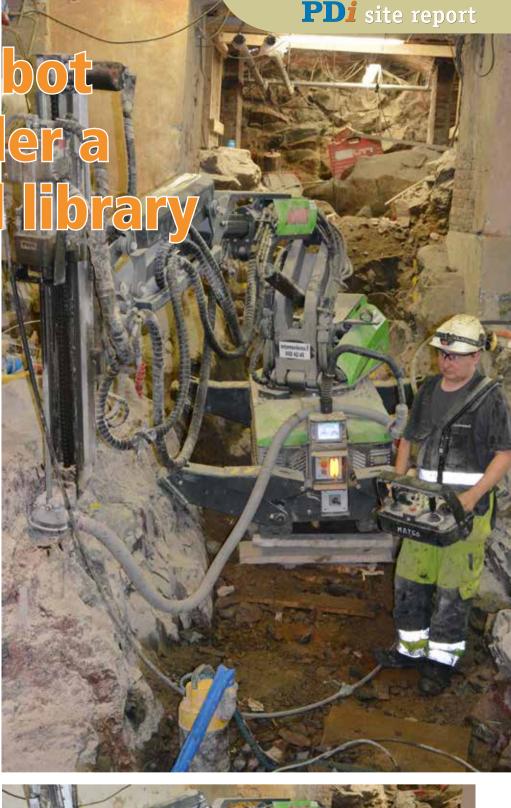
"When working in a historical building such as this, the job has to be done without dust, water, vibration and exhaust," said Jyrki Metso from contractor Metson Murskaus. The space is so limited that the first boulders had to be excavated with a sledgehammer and a hand drill. But the majority of the excavation is being done with a remotely controlled Avant Robot 185 equipped with Doofor rock drill and a hydraulic splitter.

The robot, which is less than 800mm wide, can be driven through the narrow corridors of the cellar. It drills 1m deep, 45mm diameter holes into the rock, which is then broken with a hydraulic splitter, prior to excavation. "Because of the limited space, the boulders have to be manually removed. So there are plenty of holes to be drilled," said Metso.

The Avant Robot 185 is equipped with a telescopic boom and continuous slewing. The electrically operated machine enables working in the confined cellar without fumes. "In such difficult conditions and tight schedule, the machines and service have to really work. We have been pleased with the reliability and features of our robot and drilling. The robot has proven itself with the 500h on it, and service and spare parts have been quick if we ever needed anything," said Metso. "With these work tools and methods, we have been able to meet the challenges of the project and to proceed according to schedule."

www.avanttecno.com







European construction equipment industry's call for balance between competitiveness and environment

In September the European Commission published its proposal for a revision of the directive 97/68/EC covering exhaust emissions reduction for engines installed in non-road mobile machinery, setting standards for construction equipment and other machinery that are the strictest in the world.

In the construction equipment sector the regulation applies to a wide variety of machines, from hand-held equipment to the largest mining machines, used to erect houses, build infrastructure, operate quarries and provide emergency relief when natural disasters strike.

The key elements of the regulation for the sector are:

- Introductory dates of 2019 to 2020
- Limit values that will reduce emissions to extremely low levels
- An unprecedented rate of introduction across the entire power range of equipment, irrespective of combustion cycle and fuel.

"We welcome that highly-essential requirements are met, such as a predictable introduction pace and emission limits that acknowledge the vast technological progress made in the industry," said European Committee for Construction Equipment president and managing director of Caterpillar France Eric Lepine. "But the proposal certainly needs further studying and refining, in particular with regard to further provisions for replacement engines and the concerns of niche equipment manufacturers."

Lepine emphasized that the construction equipment industry is working hard to provide its customers with machines offering the highest productivity and lowest environmental impact.

However, delivering the next generation of machines to the market in time will remain a complex challenge. "Product cycles are long and product diversity is huge, putting a tremendous strain on development time," said Lepine. The sector calls on the European Parliament and Council to facilitate a swift reading of the proposal, to secure sufficient lead-time ahead of the legislation entering into force

European construction equipment manufacturers already produce the cleanest and safest machinery in the world. They need economy of scale to stay competitive in a global environment and maintain profitable manufacturing sites in Europe. "The global market for highly-regulated products is in comparative terms quite small. Europe cannot afford to deviate too much from requirements in other ambitious nations in this field," said Lepine. "We urge the EU to maintain alignment in standards and limits with other regions, notably with the US, and actively promote worldwide alignment."

NDA appoints new executive director

In the US the National Demolition Association has appointed Cheryl Caulfield as executive director. Caulfield will work directly with NDA leaders and volunteers to help guide and execute the organization's strategic initiatives, programmes and policies. Caulfield is replacing NDA executive director Michael Taylor, who is retiring from the association after 25 years of service.

Caulfield has more than 20 years of association experience, including a mix of advocacy, member education, membership development, financial management and meetings management experience. She spent a number of years working for building and real estate associations, including several years at the National Association of Home Builders, where she was both a senior vice president for government affairs and, before that, vice president for the NAHB Builder 20 Clubs.

"The Board of Directors is excited to begin working with Cheryl," said NDA president Jeff Kroeker of Kroeker in Fresno, California. "Her proven abilities in advocacy, membership development and member education will be incredible assets to NDA. We're thrilled to have a leader of this calibre helping to define the future of the demolition industry. I would also like to thank Mike Taylor for his commitment to the success of the NDA and our members over the past quarter century."

Caulfield has also served as president and chief executive of the American Bearing Manufacturers Association. Working with both global and domestic manufacturing chief executives, she was responsible for the daily management of ABMA and implemented the organization's strategic initiatives and global anti-counterfeiting programmes, education, ANSI standards development and industry relations. She holds a bachelor's degree in political science from Old Dominion University, a Certified Association Executive designation from American Society of Association Executives and a Certified Institute Organization Management designation from the US Chamber of Commerce.

demolitionassociation.com



Important new guidelines from IACDS

When the International Association for Concrete Drillers and Sawers IACDS held its annual meeting in 2013 the association received sharp criticism from a few member associations that too few results are available for the concrete cutting market can benefit from. It was decided to call for a separate meeting to discuss the future of IACDS. This meeting took place in Amsterdam in the autumn of 2013.

The majority of the member associations met and where represented by a number of contractors. IACDS president Lars Sandström and secretary Daniel Trachsel chaired the meeting. The meeting became a brainstorming session and the foundations of the association were dissected. The outcome of the meeting was very positive and maybe something that should have been made several years ago.

In brief it was decided that the first task for IACDS should be to create a number of common guidelines for the industry to create conformity and to help contractors in their daily work. Each member country represented received homework, which should result in a draft of a guideline within those sectors of work that are most common and most important. Each country chose the area it had most experience in. Below are the disciplines that needed a common guideline:

- Robotic demolition training guideline
- Quartz dust guideline
- HAVS guideline
- Specification market key indicators guideline
- Basic description technologies

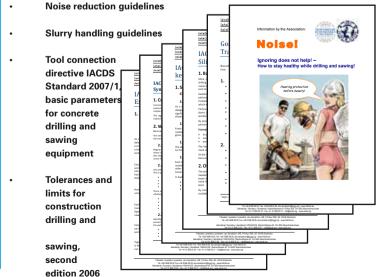
It was decided that drafts should be made and sent out well in time before the annual meeting so each member would have time to go through the drafts and comment on them. Finally the standards and guidelines where presented by each author at the annual meeting in Madrid, in the summer and were approved by the meeting. Everybody agreed that this procedure was exactly in line with what type of missions IACDS should work with, creating overall standards and guidelines and making each member company's daily work easier, safer and more efficient.

Also each member association does not need to do all the work by themselves and instead seek help from IACDS. By establishing overall standards and guidelines, make sure they are followed and by continuing to create new guidelines IACDS will contribute to conformity within the global concrete sawing and drilling industry. And this type of work will continue within the IACDS.

One subject discussed quite a lot within IACDS is the possible need for a special operator's certificate for handling remotely controlled demolition robots. It is a fast growing trend that concrete cutters use demolition robots in their daily work all over the world. Maybe IACDS is the right forum for supervising certification for demolition robot operators.

All standards and new guidelines can be downloaded at IACDS web portal www.iacds.org. The IACDS meeting in June 2014 stated that it is of highest importance that each member association also shares the information with its national members and follows the new guidelines in order to establish conformity.

www.iacds.org





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