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KELLIE KIMBALL
CSDA President



As my term as President draws closer to the end, I want to take a moment to reflect on the incredible value of being active within our industry association. Participation in this community is not just beneficial; it is essential for our growth and success individually, within our companies, and as a whole industry.

One of the top advantages of being part of the CSDA is networking. Building strong relationships with contractors and manufacturers will provide invaluable contacts who can support and elevate your business. These connections can lead to collaborations, new opportunities, and a robust support network that is crucial in our ever-evolving industry.

Staying informed about government regulations and OSHA standards is another benefit of our association. When you are an active participant in our association, you can be the first to know about upcoming changes that may impact your operations. This is a proactive approach that will help you protect your business and your employees.

Safety is a top priority for all of us. Through the CSDA, we learn from each other to build effective safety management plans and programs. Sharing best practices, standards and specs allows us to improve our own company's safety measures and overall foster a culture of safety within our organizations.

Membership in CSDA will provide you and your company with access to a wealth of benefits, and I encourage you to take full advantage of these resources that are consistently at your disposal.

I also want to remind you that the World of Concrete is just around the corner, taking place from January 21st to 23rd in Las Vegas. Be sure to register for WOC using the CSDA code A26. While you are there, visit the CSDA booth – C4211 in the Central Hall. This is a great opportunity to connect and engage with our community! On Wednesday, the 22nd, CSDA will be hosting our Annual Board Meeting, our Awards Ceremony, and our Happy Hour. Visit our website to find out all the latest details.

Looking further ahead, mark your calendars for the CSDA Conference the week of March 10th in San Antonio, Texas. This year's theme, "Spurring Imagination," is meant to inspire innovative ideas and strategies for our industry.

Thank you for your continued commitment to our association and the future of our industry. Together, we can achieve great things.

Warm regards,
Kellie Kimball

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CONCRETE CASES

Precision Under Pressure: Powering Through Detroit Airport's Massive Concrete Overhaul



Building Success: D-Drill's Role in Cardiff's New Horizons

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CONTENTS

- 1** **President's Column**
- 9** **Safety Counts**
Improving Safety in Core Drilling with Slurry Rings
- 11** **The Business of Business**
Concrete Shifts: Navigating Economic Waves in a Post-Election Landscape
- 18** **GPR Insights**
Increase the Safety of Bridges and Road Infrastructure with Advanced Non-Destructive Testing
- 21** **IACDS President's Column**
- 23** **Why is Empathy so Hard to Get Right? Especially for Men**
- 26** **Tech Talk**
Understanding the Benefits of a 4-speed Gearbox on a Flat Saw
- 28** **Coping With Technostress: The Healing Power of Nature and Managing Technostress**
- 32** **Industry Bits**
- 38** **10 Reasons Why Construction is Slow to Adopt Tech**
- 40** **Certification**
- 41** **Accreditation**
- 42** **Membership**
- 46** **Calendar**
- 48** **Committee Spotlight**
Standards and Specs Committee

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PRECISION UNDER PRESSURE:



Powering Through Detroit Airport's Massive Concrete Overhaul

The Walsh Group, ranked among the top construction firms nationwide, started on a time-sensitive project at Detroit Metropolitan Airport in 2023. The eight-month project called for reconstructing and, when possible, repairing taxiways and 21 apron gate areas at the McNamara Terminal as well as reconstructing the surface area over the underground Light Tunnel that connects the Terminal's three concourses.

To accomplish this, the job required the demolition of 1.1 million square feet of concrete, equaling 46 linear miles of saw-cutting concrete to depths of 17” thick, as well as green-cutting control joints, joint widening, and beveling an additional 40 linear miles of newly poured concrete. All of this needed to be completed without shutting down the airport operations or terminals at one of the busiest airports in the country.

Bringing in the Experts

At the start of the eight-month project, 75,000 linear feet (14 miles) of 17” thick concrete over the Light Tunnel had to be saw-cut into 5’ x 5’ squares for easy removal – and the cutting had to be accomplished in five days. This is where the professionals at Diamond Concrete Sawing entered the picture.

To get the job done, Diamond deployed 20 saw-cutting technicians and 14 high-power Husqvarna 9900, 8400, 6600 slab saws to implement the short-term Light Tunnel plan. The techs were divided into two 10-man crews, each working 12-hour shifts for five days. In addition, after calculating the blade wear rate, Diamond stored sufficient 20” to 42” diamond-tipped saw-cut blades on-site to expedite the process of replacing worn blades.

Of course, safety was a priority with crew working long hours. Along with the mandatory use of hard hats, safety glasses, and steel-toe boots, daily tool box talks were conducted on each shift. Additionally, cleaning up the slurry during saw cutting presented a potential slurry burn and

slipping hazard. To mitigate this, Walsh and Diamond hired vacuum trucks to regularly clean the cutting areas every couple of hours, helping to maintain a clean and slip-free environment.

Working around the clock, Diamond met the Walsh Group’s schedule by saw-cutting 14 miles of 17” thick concrete in the required five days. Over the next eight months, from April to November 2023, Diamond deployed additional crews and equipment to meet the Walsh Group’s timelines for the entire duration of the project. As you can imagine, the weather was not always cooperative. Over the course of the eight months spent on this project, crews experienced rain, and high winds, sometimes both at the same time. However, to meet the schedule, they just kept working through it as long as safety was not compromised.

Working adjacently to active runways and gate apron approaches just a few feet from giant aircrafts, while not dangerous, was at times daunting and noisy. The crews were regularly reminded to be situationally aware at all times. And as part of the safety protocols, technicians were trained for driving on the runways and working around an operational airport.

Meeting the Challenge

By the project’s end, Diamond saw-cut a total of 242,600 linear feet (46 miles) of concrete to depths of 17” thick while also green-sawing control joints, joint widening, and bevel-sawing an additional 210,255 linear feet (40 miles) of new concrete.





Diamond's expert concrete cutting services played a crucial role in the successful completion of the challenging demolition, removal, and reconstruction project at Detroit Metropolitan Airport's McNamara Terminal, earning praise from the Walsh Group. "This was a very large and logistically difficult demolition, removal, and reconstruction project," said Chris Reed, Assistant Project Manager at the Walsh Group.

"We developed our plan and timeline, and Diamond worked alongside us to finish it on time." According to Reed, the Diamond team knew what they were doing. "Their crews were professional, and while they worked fast, they did not sacrifice quality. They worked long hours, day and night around the clock, to finish on schedule."

Ed Drozdowski from Diamond commented, "We created a great relationship with our customer." And this relationship has led to the opportunity to bid for and work with Walsh on several other projects.

COMPANY PROFILE

For over 50 years, Diamond Concrete Sawing has been at the forefront of the concrete sawing industry. As a "customer-first" company, Diamond provides a wide array of technologically advanced concrete sawing, demolition, and locating and ground penetrating radar (GPR) services to satisfy the needs of knowledgeable customers who demand immediate solutions within budget and on time.

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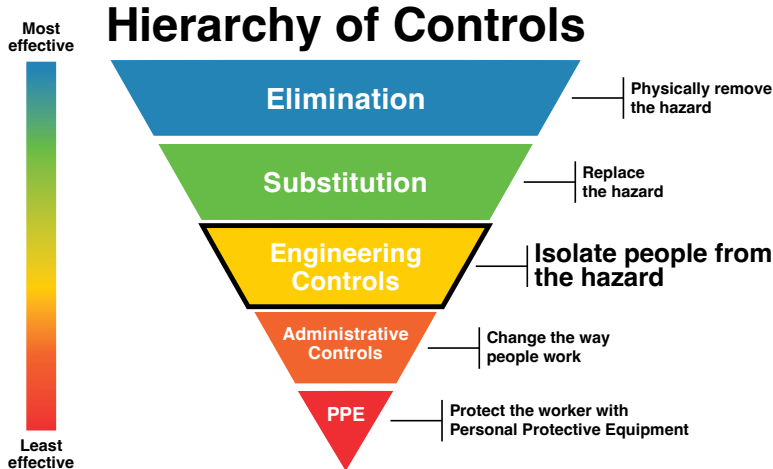
**Mike Orzechowski PE,
DITEQ Corp.**

There are many different styles and sizes of slurry rings from multiple manufacturers. The fundamental engineering design goal is to contain slurry from core drilling operations to minimize cleanup from the splash and slinging slurry. The slurry rings help maintain a cleaner job site around the core drilling operations.

Another benefit of the slurry ring is that it can help reduce water usage. This is important on some jobs with limited water supply, where pump cans are used to supply water to the wet coring operations. Less water equals less slurry cleanup. The water can be contained at the core bit and reused to keep the core bit sufficiently wet. With a slurry ring, the operator's time can be spent on the core drilling operations instead of collecting and disposing of excessive slurry spreading away from the drilling area.

A major consideration for the operator using a slurry ring is when the slurry becomes excessively thick by using too little of water flow, deceived by observing the slurry in the ring that may look like the bit is appropriately supplied with water. The thicker slurry can eventually cake between the core bit barrel and the sides of the cored hole causing a phenomenon known in the industry as "slurry lock." It can eventually result in seizing the core bit and locking it in the hole.

OSHA 1926.25(a-c) is the 'housekeeping' standard to maintain a clean safe work site. Slurry can be a slip hazard. The slurry ring can be considered an engineering control on the hierarchy of controls for OSHA. Core drilling can, and frequently is, performed without slurry rings. There are countless ways to meet the OSHA requirements without using a slurry ring. However, many times it is a good and efficient way.



One effective way to manage the slurry is to use super absorbent polymer (SAP), commonly known as “gel”. The gel absorbs water and helps keep the slurry contained and under control. Before core drilling, a ring of the gel product is placed to encircle the bit, leaving enough space to allow the water and slurry to pool around the bit and allow for the gel expansion. As the gel soaks up water from the slurry, it expands significantly, creating a more substantial barrier.


The gel products can aid in the clean-up of the slurry from the cored hole. Many of the higher quality SAPs can lock in the water from the slurry and dry out the slurry to meet the requirements to dispose of in a solid waste landfill (Code of Federal Regulations 40CFR264.314b) by passing a paint filter liquids test Method 9095B.

Slurry rings have another distinct advantage over gel products for use on vertical and overhead surfaces. Many of the slurry rings are designed to be used to control and/or collect slurry on a vertical surface. There are a select few that have a special gasket to be able to provide adequate slurry control on overhead surfaces.





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Concrete Shifts: Navigating Economic Waves in a Post-Election Landscape

As I draft this economic outlook just days after the election, I'm keenly aware of how quickly things can change in today's fast-paced news environment. By the time this article is published, details may have evolved. However, certain economic trends are likely to persist into early 2025, when the new administration's policies begin to take effect. For business owners and sales teams in the concrete cutting and sawing industry, these shifts could bring both opportunities and challenges.

The election results highlight a divided nation, with nearly half the electorate seeing a different path forward. Yet, there's a cautious optimism that positive economic changes are on the horizon. Here's a look at the key areas likely to impact the concrete industry in the coming months.

Expected Economic Shifts

- 1. Federal Tax Cuts:** One of the most immediate changes could be federal tax cuts, especially for corporations and low-wage earners, including those reliant on tips. Lower tax burdens may increase consumer spending, indirectly boosting construction activity and demand for concrete work in commercial and residential projects. Additionally, reduced taxes could leave more funds available for businesses to reinvest, potentially driving growth in the concrete sector as companies expand and upgrade facilities.
- 2. Reduced Corporate Regulation:** The new administration is likely to ease regulations, particularly in energy and mining. This reduced oversight could accelerate permitting for infrastructure projects and simplify compliance. Concrete businesses working with industrial or energy clients could see increased demand as these sectors expand and upgrade.
- 3. Reduction in Green Subsidies:** Certain green subsidies may be phased out, shifting federal and state investments away from renewable energy projects. While this may reduce demand in some areas, traditional sectors like oil, gas, and mining could see growth, particularly if deregulation opens new drilling and mining opportunities that require concrete infrastructure.
- 4. Stock Market Growth:** Many expect an uptick in Wall Street activity, particularly in technology and energy sectors. Rising stock values can boost consumer confidence and investment. If tech and energy stocks continue to grow, it could lead to more investments in infrastructure, manufacturing facilities, and corporate real estate—all of which rely on concrete services.
- 5. Decreasing Commodity Prices:** In the short term, certain commodity prices, especially oil and energy-related resources, may decrease. For the concrete industry, which relies on fuel and transportation, lower energy costs could reduce overhead, potentially making contractors more competitive in securing bids.

6. Reduced Cryptocurrency Regulation: As regulatory scrutiny eases on cryptocurrencies and related transactions, investors may have more capital to deploy, possibly financing real estate and infrastructure projects. For concrete cutting and sawing companies, this could mean an increase in private investments in construction.

Potential Uncertainties

While certain changes seem likely, other aspects of the economic landscape remain uncertain, and their outcomes could have far-reaching implications for the concrete industry.

- **Coalition-Building for Policy Changes:** While the new administration may hold a favorable majority in Congress, it will need to build coalitions to push policies forward. If consensus proves difficult, initiatives to streamline regulations or adjust tax policies could face delays, limiting any economic boosts for the concrete industry.
- **Influence of Key Figures:** Figures like RFK Jr., Elon Musk, and Tulsi Gabbard could shape policy, potentially impacting trade, technology, and energy. Their influence could affect tariffs, AI integration, and efficiency measures. For the concrete industry, Musk's potential role in efficiency initiatives could lead to cost-saving opportunities, though it's unclear how soon these would be realized.
- **Tariffs as Revenue Streams:** Tariffs may become a favored tool to fund new initiatives, but they tend to raise the cost of goods and services. Increased costs on imported materials, for example, could drive up expenses for construction projects, creating budget constraints for concrete companies.
- **Interest Rates and Inflation:** The Federal Reserve's stance on interest rates remains uncertain. If Quantitative Easing (QE) resumes to stabilize the economy, it could drive inflation, impacting pricing and spending power in the concrete industry. Higher costs for raw materials, machinery, and labor could potentially squeeze margins and affect profit forecasts.
- **AI's Impact on Economic Growth:** The growth of AI could lead to significant productivity gains, which may enhance GDP over time. However, there's a risk of disruptions as AI transforms industries. The concrete industry could see improvements from AI in logistics, project management, and automated machinery, though adapting to these technologies may require upfront investments and a learning curve.
- **Federal Budget and Debt Reduction:** The national debt is at historic highs, with projections suggesting it could double by the decade's end. The administration may push for cuts to address this, focusing on efficiency improvements. The impact on federal infrastructure

spending remains uncertain, but any cutbacks could limit public works projects, reducing available contracts for concrete companies.

Looking Ahead: A Pivotal Time for Concrete Industry Leaders

These economic trends present both opportunities and uncertainties for the concrete industry. Potential tax and regulation relief could reduce costs and increase project availability, while Wall Street optimism could drive demand for commercial and residential building. At the same time, unpredictable factors like tariffs, AI-driven productivity shifts, and federal budget challenges could introduce constraints. For business owners and sales teams in the concrete cutting and sawing industry, this is a critical moment to assess strategic plans. Focusing on efficiency, monitoring cost fluctuations, and staying adaptable to regulatory changes will be essential. While the path forward may be unpredictable, those who remain agile and informed will be well-positioned to capitalize on emerging opportunities and navigate any challenges ahead.

Dr. Bill Fisher
National Research
Company

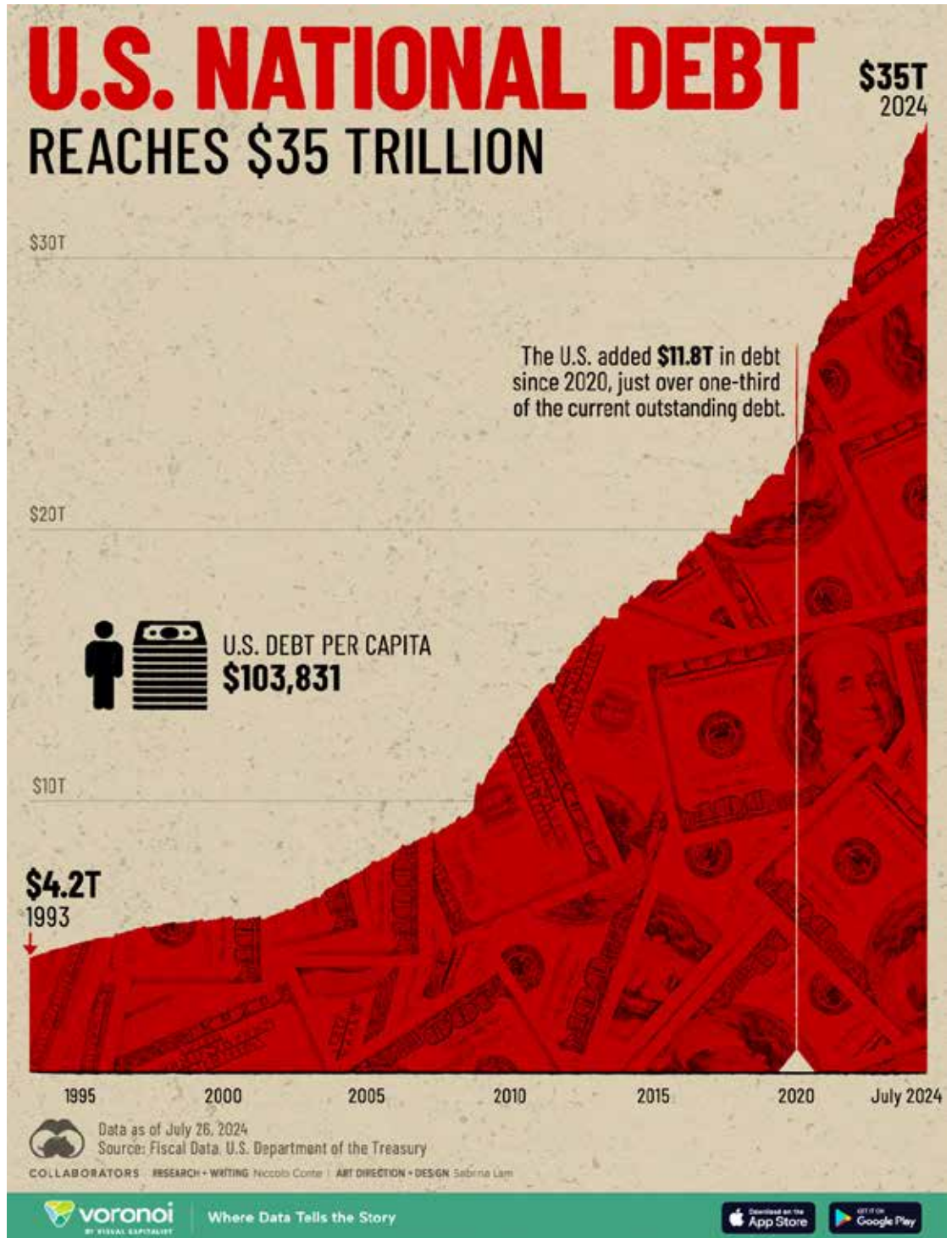


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<https://www.visualcapitalist.com/u-s-national-debt-reaches-35-trillion/>

Dr. Fisher will be discussing a more detailed economic outlook during the CSDA Annual Conference. Don't forget to register and learn more. www.csda.org



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**D-Drill's Role
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The team at D-Drill & Sawing has been raising a glass after completing a major concrete removal project in Cardiff city centre, the central business district of Cardiff, Wales, to support the development of new apartments.



CSDA member D-Drill was called into the city to remove a section of a parapet wall of a new build-to-rent development on the site of the former Brains Brewery.

The company was asked to remove the top 600mm of a wall on the eighth story of the building which forms part of a 715-apartment development called Central Quay by Watkins Jones and Legal & General. The Central Quay development was designed for people to live and work in the city. Its draw includes access to the River Taff whilst enhancing the legacy of the original brewery by retaining the iconic chimney stack and bringing the historic brewhouse back into use.

Due to a design change, D-Drill was hired by the Stephenson Group, a concrete frameworks specialist, to carry out the removal. The contract was awarded based on the success of previous projects D-Drill had expertly executed for the client, reinforcing the Stephenson Group's trust in their commitment to quality and precision.

With around 80 metres to remove, three members of the D-Drill team, along with other support staff, were called in to find

the best solution. However, there was an added complication. The building was a live site. With work being done on the outside cladding and fascia, there could be no slurry runoff. To do so would risk damage.

Lionel Whittemore, D-Drill & Sawing's South Wales and Midlands manager, said the team had worked around testing circumstances successfully to leave a very satisfied client. He says: "Occasionally for buildings of this kind, there can be a design change which means concrete needs to be removed and, in this case, the client wanted a parapet reduced in size. They brought us in, we could see that we were going to have to work around a live building site and that it was going to be vital to produce a plan that stopped waste and slurry from falling below."

The team decided to use a combination of stitch drilling and track sawing. The decision was made to stop short of drilling completely through the wall. They devised a plan where they would set the saw to cut through the concrete parapet wall but stop with 15mm left to go preventing any water or slurry runoff running onto the new cladding and fascia.

To manage this, the team strategically avoided cutting completely through the wall, ensuring that all water, slurry, and debris were contained on the rooftop side.

D-Drill provided its own three-phase power supply and arranged for the main contractor to have it hoisted to the upper floor alongside the other tools. Then the work began. The team stitch-drilled every 4m along the wall using the Husqvarna DS500 drill stand with a Husqvarna DM 340 motor and then used a Pentrunder RS2 track saw to cut out the individual pieces of the wall.

Next they drilled 75mm diameter holes in each section allowing rings to be run through the concrete so that it could be attached to a tower crane for removal. With just the final 15mm remaining uncut, the pieces naturally broke off. But the pieces could be fully removed, the slurry and waste were removed using a wet vacuum.

To ensure maximum safety, the team established exclusion zones on the scaffold directly below as sections were lifted from the building using the tower crane. This approach maintained a clean and safe environment while allowing others to continue operating safely and efficiently above.

Across a seven-day period, 27 sections of concrete, each weighing approximately 1.5 tons, were drilled and sawn. This project was completed on time and within budget, a testament to D-Drill's proven reliability and expertise.

"We had a very strong team of operatives who came up with a plan to cut through the concrete which was 300 mm thick and could only go through to within 15mm rather than completely cut through, as that would have caused slurry to drop through," remarked manager, Lionel Whittemore.

"We were able to operate in this way because we invested in new track saws at the start of the year that make this kind of technique possible. It meant that we did the bulk of the cutting and drilling and then the final piece of force was the crane simply being able to snap it away, by which time all of the slurry and waste had been removed."

"It is always testing to work in this way, but we pride ourselves on finding solutions. D-Drill certainly has much to celebrate with a job well done and a happy client to boot."



COMPANY BIO

D-Drill & Sawing is headquartered at the heart of the UK near Coventry. It covers the whole of the country, with offices in Newcastle, Sheffield, Wigan, London, Newbury and Bridgend. It employs around 80 people.

It offers a range of services including diamond drilling, concrete sawing and controlled demolition, kerb cutting and concrete scanning. It has also recently added a new division that works with the telecoms and solar sectors offering drilling and pull-testing as part of its drive to innovate and offer a 'one-stop-shop' for clients.

The business, which has been operating for 57 years, is led by managing director Julie White, who is chair of the UK's Drilling & Sawing Association and construction industry body Build UK.

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Increase the Safety of Bridges and Road Infrastructure with Advanced Non-Destructive Testing

Katelyn Kosar, Ph.D.

Bridges are the lifelines of communities, connecting us over bodies of water and valleys that are otherwise challenging to cross, as well as over barriers of our own making like highways or railways. The world relies on a network of around five to six million bridges, but aging infrastructure is raising serious questions about safety and bridge failure.

Bridge failure compromises the integrity of our infrastructure as a system. The bridge itself is an obvious structural and financial loss. Oil, gas, energy, and transportation industries, businesses, and commuters are also affected by network interruptions. Most importantly, if a bridge fails unexpectedly, the injuries and loss of life can be devastating. It is essential to thoroughly inspect a bridge with visual and non-destructive testing (NDT) to analyze and address aging bridges before catastrophic failure occurs.

With the news of several recent bridge collapses around the world, including the partial collapse of the Carola Bridge in Germany in

September 2024, this article highlights efficient ways to improve the inspection of these vital structures using non-destructive testing methods.

Challenges of bridge inspection

Most bridges are inspected to varying degrees every few years, primarily relying on visual inspection. Typical inspection problems currently faced include:

- Traditional methods of assessing concrete bridges and road infrastructure can be time-consuming, challenging to access, costly, and destructive.
- Subsurface areas can be tightly congested with utilities, typically requiring more specialists and expensive equipment.
- It is common for data from construction and past inspections to be lost over time, leaving little comparable historical data to make future predictions.

Non-destructive testing can look deeper into a structure by combining technologies for a comprehensive assessment of the condition and integrity of structures, without causing any damage. Improving

the safety of bridges and road infrastructure starts by implementing NDT with advanced solutions in routine inspections.

NDT methods to assess the health of bridges and road infrastructure

Rebar and PT Cable Detection with GPR

Ground penetrating radar (GPR) offers a precise and non-destructive solution for locating rebar and post-tension cables in bridges. GPR emits electromagnetic waves and assembles the reflections into interpretable, cross-sectional images to locate objects' position and depth. Modern GPRs use step-frequency continuous waveforms ranging from 200 – 6000 MHz to best capture objects of varying sizes and depths with clarity in a single pass. With GPR, it is possible to visualize the rebar configuration and PT duct layout in a plan view, 3D, or augmented reality to better consider the layout as a whole and identify any potential anomalies, even in congested areas. This valuable information is crucial for confirming structural capacities and facilitating efficient maintenance.

Post-Tension Cables Assessment with Ultrasonic Methods

Maintaining the integrity of post-tension cables is paramount for

bridge safety. UngROUTED areas or voids can significantly compromise the structural strength and encourage corrosion of the cables. Traditionally, ungrouted areas are difficult to locate and most often go unnoticed until cable failure occurs.

Ultrasonic Pulse Echo (UPE) linear array and Impact Echo (IE) devices use acoustic waves to identify air voids within the cables and ducts. UPE assembles acoustic reflections into a cross-sectional image to clearly identify void position and severity. IE also considers acoustic reflections, but on an individual waveform basis to directly consider a void's effect on the returning signal. Either ultrasonic method provides reliable, non-destructive testing to detect ungrouted regions in post-tension cables, enabling timely intervention before failure.

Bridge Deck Inspection with Multichannel GPR

Multichannel GPR is a powerful tool for revolutionizing bridge deck inspections. This uses the same principles as a single antenna GPR used to locate rebar and PT cables, but the multiple channels improve data quality and depth penetration for a more comprehensive analysis. Surface cracks, asphalt-concrete bond condition, and rebar integrity can be visualized in real-time, with detailed plan and 3D views. Multichannel GPR can collect data on a bridge deck quickly to ensure minimum disruption to traffic while maintaining extremely accurate data quality. This complete analysis of a bridge deck is crucial for structural monitoring and making informed maintenance decisions.

Concrete Uniformity Evaluation with Rebound Hammers

Rebound hammer testing offers a

quick and efficient way to assess the structural integrity of bridges. Rebound hammers contain a mass which is spring loaded and launched at the concrete surface. The rebound properties are measured and compared to before the impact. This ratio results in a rebound value relatable to the concrete capacity below the impact. Impacting a structure at different locations can locate damaged areas or those with comparatively lower capacity. The rebound number also correlates well to compressive strength so rebound hammers can be used to estimate

larger flaws that can occur such as honeycombing, delaminations, and voids that can significantly reduce structural capacity.

Ultrasonics can reliably locate both minor mixture changes and major defects using Ultrasonic Pulse Echo (UPE) linear array and Pulse Velocity (UPV) devices. A portable UPE device can comprehensively assess concrete uniformity, quality, thickness, and defects by visualizing acoustic wave reflections into a cross-sectional image for easy interpretation. UPV devices rely on an apparent change in ultrasonic velocity to identify areas



concrete strength quickly and with fewer cores. Rebound hammers are a simple, quick test that can easily identify areas of potential weakness, enabling proactive maintenance and ensuring long-term structural health.

Concrete Uniformity Checks with Ultrasonic Pulse Echo and Velocity

Concrete is naturally a composite material, but it requires a degree of uniformity across mixtures to ensure its structural integrity. There are also

with discontinuities. Regardless of the ultrasonic method of detection, detecting non-uniform areas is essential for ensuring the safety and durability of concrete structures.

Rebar Corrosion Assessment with Half-Cell Potential Technology

Corrosion is a constant threat to reinforced concrete bridges due to their proximity to salt water or deicing salts. Half-cell potential technology offers a straightforward and effective method for evaluating active corrosion



risk. Once chlorides, air, and water reach steel reinforcement, electrons begin exchanging in the corrosion process. Half-cell potential testing can detect this exchange and compare the resulting voltage to a reference cell. The more negative the voltage or potential, the more likely active corrosion is occurring.

Half-cell potential devices allow for a large area to be evaluated quickly and accurately. This results in a corrosion heat map, known as a chipping graph, that delineates exact locations with high and medium corrosion risk so maintenance can be efficient and effective. Real time potential readings allow engineers to make decisions in the field, enabling timely mitigation.

Concrete Cover Inspection with Cover Meters

Reinforced concrete relies on rebar to carry tensile loads in a structure. There are specific requirements for placing rebar because rebar too close to the surface will cause the concrete to spall or increase the risk of corrosion. Adequate concrete cover is essential for protecting rebar and its structural capacity ensuring the long-term durability of bridges and reinforced concrete structures.

Cover meters use eddy current technology to measure a magnetic induced voltage created by the steel reinforcement. Since the measured voltage only depends on the distance and diameter of the steel rebar, this method is the most precise and reliable method of measuring concrete cover and estimating rebar diameter. This makes cover meters an excellent quality control tool to take preventative measures when needed or as an added consideration for a corrosion assessment.

Concrete Resistivity Testing with a Resistivity Meter

Resistivity is a valuable indicator of concrete quality and durability. This method was developed to replace the long and tedious rapid chloride penetration (RCP) test. RCP measures how easily chlorides can travel through concrete, determining how well a concrete mixture will protect steel rebar. Resistivity correlates very well to RCP results, is a reliable exchange, and takes only minutes to complete on a cured specimen. A low resistivity suggests chlorides can travel through the concrete easily, therefore there is a high likelihood of corrosion occurring. Resistivity meters offer a convenient and accurate solution for measuring concrete resistivity either using surface or bulk resistivity.

Historical Data Organization with Connected Devices

With integrated software and app technologies, the risk of data loss is reduced as most devices store data in an online workspace containing all measurement records in one secure, convenient cloud location. The data can be accessed and shared easily between team members and clients for years to come, providing historical data for future inspection.

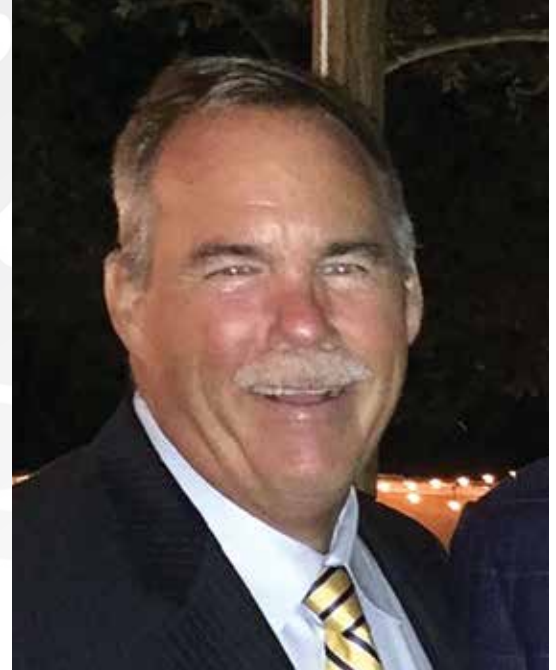
With these advanced NDT solutions, it's possible to improve the inspection of bridges and road infrastructure and enable more informed decisions for proactive asset management. This will increase the quality and longevity of critical assets.



Katelyn Kosar, Ph.D. is a Solutions Consultant at Proceq – A Screening Eagle Company. Katelyn specializes in the technical aspects of nondestructive testing, often in the analysis of concrete structures. She graduated from the University of Pittsburgh with her doctorate in Civil Engineering in 2023.

Join Us at BAUMA 2025: Honoring Excellence in Concrete Cutting and Drilling

DOUG WALKER
IACDS President



Next year, BAUMA will take place in Munich from April 7th to 13th. This event is not only the world's largest trade fair for construction equipment; it's also a dynamic exhibition of innovative technology and industry developments. Held every three years in Munich, Germany, this renowned gathering attracts over 600,000 visitors and exhibitors from across the globe. For professionals in the construction sector, BAUMA provides an unmatched chance to network, discover groundbreaking solutions, and participate in valuable discussions that propel the industry forward.

IACDS is delighted to host its Annual Meeting and Networking Event at BAUMA 2025, emphasizing the importance of building connections within the concrete sawing and drilling field. Professionals will have an excellent opportunity to engage in insightful conversations, exchange ideas, and forge new business relationships that will inspire future innovations and industry growth. Likewise, IACDS will hold its Annual Meeting on this day, welcoming members from various nations, including representatives from Japan and the United States, to discuss the industry's future and encourage collaboration among its global members.

A major highlight of IACDS's presence at BAUMA will be the Diamond Award Ceremony, an internationally renowned competition that acknowledges the best in the concrete

cutting and drilling sector. The awards feature two main categories: Projects and Products. The "Projects" category celebrates exceptional technical achievements by contractors, showcasing complex and innovative cutting and drilling projects, while the "Products" category emphasizes the cutting-edge equipment and tools utilized in the industry. Ceremony attendees will have the opportunity to witness the top submissions, reflecting the industry's finest talent, creativity, and technological progress.

BAUMA 2025, together with IACDS's participation, will be an essential event for those in the concrete cutting and drilling industry. The combination of networking, recognition through the Diamond Awards, and strategic planning makes this event a crucial opportunity for professionals aiming to advance and innovate in this constantly evolving field.

With IACDS's involvement in BAUMA 2025, this promises to be a must-attend occasion for anyone in the concrete cutting and drilling industry. Don't miss the chance to network, celebrate excellence through the Diamond Awards, and engage in important discussions that will shape the future of our dynamic sector.

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Why is Empathy So Hard to Get Right? Especially for Men

Empathy is perceived, especially in tough guy-tough gal cultures, as a sign of weakness. Empathy is not often co-related with strong business results, particularly in construction, engineering, project management, manufacturing and other hard-nosed places.

But we now know that empathy, delivered in the right dose, delivers solid business outcomes. Empathy can drive retention, help you find quality workers and even support building a strong safety culture.

Empathy is more important now than ever, with so many people experiencing high levels of stress and so many companies struggling to find workers.

According to a recent report by Catalyst, empathy leads to strong results in retention, engagement and innovation.

But why is it so hard to get empathy right, especially for us men? Consider these three reasons:



1. We men are uniquely hard-wired by our stone age brains to defend our tribe, fight when necessary and hunt in order to survive. Empathy was not a requirement for killing a saber-toothed tiger.
2. We are socialized to not pay much attention to feelings, ours or others. This can lead to relational problems, especially when others are going through hard times, like losing a beloved dog, or going through a divorce. This is made worse by leaders with high rank, who often score extra low on empathy, partly because they are working so hard to get so much done.
3. At work, especially in the construction companies where I work, when men finally get to empathy, they fear they will buckle completely, and sometimes they do. For a fine, dramatic example of that, see this funny 2 min video (link below) of a construction foreman attempting to empathize with another whose dog died.
www.youtube.com/watch?v=jYD8poZB0SQ

I believe men can feel plenty of empathy, we just have a hard time expressing it some days. So, the next time you see a guy struggling to express empathy, give him a break and ask if he needs a hug.

If some at your company are struggling to show empathy, especially between the generations or even with customers, then reach out today at tom@eschconsulting.com.



Tom Esch is President of Esch Consulting, LLC based in St. Paul, Minnesota.

Tom has inspired over 25,000 people with his messages related to leadership, communication and positive use of power.

He has advanced training in Conflict Resolution and Organizational Development and a master's degree in Theology from the University of Notre Dame.

He published a book, which became a "#1 New Release in Construction" on Amazon, called *Personal Accountability and POWER: How Contractors Can Build a Stronger Safety Culture*.

Tom's company helps contractors build their business by improving the communication skills of their leaders. You can see more at www.EschConsulting.com or Tom@EschConsulting.com



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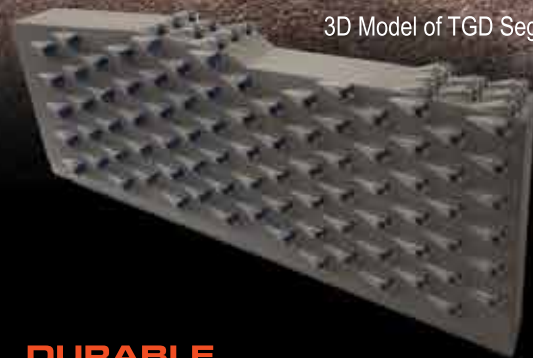
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Understanding the Benefits of a 4-speed Gearbox on a Flat Saw

For professional concrete cutters, a flat saw is an essential piece of equipment on the jobsite and an extension of the operator. They're available in multiple configurations and power sources to fit a job's requirements, but having one tool that can do the job of multiple is the ultimate in on-site optimization. Investing in a flat saw with a 4-speed gearbox offers the optimal transmission of power to help achieve the perfect cut — and minimize the need for maneuvering between multiple saws on-site to accomplish different tasks. If you're looking for a single piece of equipment that has a range of capabilities, there's no other way to get it than with a 4-speed gearbox flat saw — here's why.

IMPROVED JOBSITE FLEXIBILITY

The more gears at your disposal, the more flexibility you have on your job. And when efficiency is at a premium, the ability to use only one saw easily cuts through the alternative of transporting and switching between multiple saws. Because different materials require different cutting speeds for optimal performance, the wider range of capabilities a 4-speed gearbox offers means you won't compromise on speed or the need to adjust to the unique

requirements of different-sized blades.

There are situations where a larger saw blade is needed for deep cuts and a smaller saw blade for shallow cuts or fine detailing. Because a 4-speed can accommodate a variety of tasks, it eliminates the need to buy multiple saws that are only dedicated to a narrow range of tasks. Having one saw can reduce costs and improve efficiency by ensuring that it can be used for a wide range of projects. For operations that value flexibility and efficiency, a 4-speed gearbox is hard to beat.

ENHANCED CONTROL AND PRECISION

A piece of equipment that has the ability and range to adjust to a wide array of speeds gives an operator more control over the cutting process, which will result in cleaner, more precise cuts. This is crucial for more intricate or detailed work where accuracy is extremely important. A 4-speed saw can also save time because it allows more work to be done over a shorter period. This is even more apparent on an electric flat saw because operators don't have the ability to control the motor's RPM speed like they can with a gas or diesel engine. A gearbox on an electric saw is a must-have if there's a need to change from small to large blades without changing saws.

As a result, being able to adjust the speed as needed to the appropriate level helps ensure more consistent cutting results, can increase throughput and minimizes mistakes or the need for rework — which can negatively impact the bottom line.

INCREASED SAW PERFORMANCE AND LONGEVITY

The addition of a 4-speed gearbox has clear benefits to the operator's ability to facilitate clean cuts across a variety of aggregates and blade requirements, but it also benefits the performance of the saw in other ways.

Reduced vibrations: A 4-speed gearbox adds weight to the saw over the blade, which aids in the quality of the cut. Extra weight over the blade helps reduce vibrations during the cutting process, and the consistent downward pressure helps lead to smoother and more even cuts. Additionally, added weight helps the blade penetrate more deeply into the material, which is especially important for making deep cuts in a single pass. This is because the added weight helps keep the blade in the cut, whereas lighter saws have a tendency to climb out of the cut.

Better belt tensioning: A properly tensioned belt will maximize belt life and power transmission. If it's too loose, the belt will slip, causing a buildup of heat that will compromise the shaft seals. If



it's too tight, you'll be overloading the PTO assembly and wearing out the belt prematurely.

A single-speed flat saw has to inherently move out of position to be able to stretch the belts to get tighter, which moves the engine back toward the rear wheels while the blade shaft is fixed in position. Since the motor assembly is one of the heaviest components of the saw, shifting weight from the front of the saw to the back changes the cutting dynamics. This could mean the motor is moved backward up to an inch or more, which could mean tens of, or even up to a hundred, pounds are taken off the blade and moved to the rear wheels. Less weight on the blade reduces the saw's resistance to climb out of the cut, forcing you to cut slower. A gearbox tensions with the motor fixed in place, so the center of gravity never changes or shifts within the saw. Eliminating the need to move the motor back increases performance as the belt wears.

Lastly, the belt is typically exposed under the chassis in a single-speed saw, making it more likely that debris will hit the belt. In a 4-speed, the belt is above the chassis, minimizing direct exposure to flying fragments and extending the life of the belt.

Protected bearings: Single-speeds tend to have an exposed shaft with exposed bearings. A gearbox is fully enclosed, and the bearings are in a housing protected from the elements. The use of water with a flat saw creates a fine, abrasive slurry, which could damage exposed bearings over time because the seals are not robust enough to protect the bearings, especially if an operator isn't keeping up with greasing them. This type of exposure could cause premature failure of the unit, negatively impacting performance and longevity of the equipment.

Enhanced blade performance: Each type of aggregate has an ideal cutting speed that maximizes blade performance and minimizes wear while still producing a clean cut. A 4-speed gearbox allows the operator to select the speed that provides the best balance between the cutting speed and blade longevity without sacrificing quality or efficiency.

On a traditional single-speed saw, you can only change your spindle RPM through the engine RPM. Every engine has a peak power zone, which is generally at the top of the RPM range. Throttling back effectively derates your flat saw, and less horsepower in the cut means more time in the cut. With a 4-speed gearbox, you can always be in the power zone.

Additionally, in the case of a gas- or diesel-powered flat saw, being able to run the engine at full speed guarantees that you get the most horsepower from the engine and that the engine's cooling system water pump and fan run at the speed required by the manufacturer. The gearbox ensures that the engine doesn't slow down and significantly reduce the speed of the water pump and cooling fan. Single-speed saws tend to allow the engine to slow down due to the workload, causing the RPM to slow and sacrificing the cooling system capacity.



ACKNOWLEDGING THE CHALLENGES OF A 4-SPEED GEARBOX

If you're looking for a piece of equipment that can basically do it all, a 4-speed is hard to beat. However, that doesn't mean it doesn't come with some perceived obstacles. Because of its flexibility to do more on a jobsite, it's a more complex piece of equipment. Increased complexity means there are more nuances and factors to consider to achieve optimum performance. Unfortunately, there's no hard-and-fast equation where a specific aggregate, coupled with a specific gear, automatically equals the perfect cut. Fine-tuning often comes down to time-tested trial and error, along with knowledge acquired over years in the field. When that expertise doesn't get transferred to newer operators, there can be a gap in knowledge and inadequate training for how to effectively use a more sophisticated saw.

As a heavier, multifaceted saw, the upfront cost is more than a single-speed saw — and so is the cost of repairs. With more potential failure points, it puts an operator in a position to stay on top of routine maintenance to mitigate undesired outcomes that could amount in additional (and potentially pricey) repairs, like leaky gearboxes, worn or damaged gears and bearing failures.

HARDWORKING FOR MULTIPLE APPLICATIONS

By and large, a tool that hits the sweet spot of improved performance and efficiency may seem like finding a needle in a haystack — but it doesn't have to be. Investing in a flat saw with a 4-speed gearbox provides operators with the opportunity to actualize a wide range of capabilities and benefits to achieve whatever task is needed while on the job. When versatility is key, a 4-speed gearbox unlocks maximum performance.

Coping With Technostress: The Healing Power of Nature and Managing Technostress

| Jasmin Tahmaseb McConatha, Ph.D.

Most of us spend hours each day in artificial light, working at computers, on our cell phones, in our comfortable air-conditioned or heated homes. In our connected world, most of us continuously multi-task. We rush from activity to activity, we simultaneously talk on our phones while we work on the computer and eat our lunch. On weekends and holidays, we answer emails on our phones. We are constantly bombarded with technological demands. It is unusual to have a free day or even an hour. The majority of Americans do not spend enough time in nature (Case, Mikels-Carrasco, Seng, and Witter, 2019). There is nothing that aids in stress management so much as a day spent in nature, in the woods, the mountain, on the beach. Nature never disappoints. Spending time in nature heals the body and the soul. It reduces blood pressure, lowers heart rate, relaxes muscles, and lowers the stress hormones.

Humans have spent most of their history living in the natural world. Contemporary industrialized societies have created artificial workspaces. Our constant need to be connected to social media has tied us to technology. Our exhaustion has resulted in many sedentary hours watching our devices, possibly while we consume unhealthy snacks. These joys and ills of contemporary life combine to increase stress levels to unhealthy levels. Social and cultural change related to an increasing dependence on computers has led to an associated increase in “technostress.” This term first coined in the 1980s by Brod (1984) focuses on the ways that increase in exposure to technology and long hours

spent on the computer has increased people’s stress levels and lowered well-being. It is not surprising that people spend their vacations attempting to reconnect with nature. A week at the beach, or on a lake, or in the mountains, is healing and restorative. Why do psychologists and physicians not make greater use of this free therapeutic method accessible to everyone? Research tells us that exposure to natural settings helps restore a person to a state of relaxation.

There has been some attention to various ways that nature can “heal.” Forest therapy, for example, called “Shinrin-yoku” in Japan, focuses on engaging the senses and taking in the “forest.” It is a health promotion method that has shown that a natural forest environment can improve well-being. Studies indicated that simply walking in a forest environment for 15-minutes tended to induce an increased state of physiological relaxation (Song, Ikei, Park, Lee, Kagawa, & Miyazaki, 2018; Tsunetsugu, Park, Ishii, Hirano, Kagawa, and Miyazaki, 2007). In fact, more than 30 years ago, the Japanese government introduced “forest bathing,” encouraging people to go into the country’s woods for therapy (Hansen, Jobes, & Tocchini, 2017).

Not everyone has easy access to mountains and lakes; however, even for those living in urban spaces can improve their well-being by spending 30 minutes in a park or community garden. Having regular access to a green space even increases longevity (United States Department of Agriculture, 2018). By contrast, nature deprivation is negatively impacting the health and happiness of

people of all ages. The epidemic increase in stress-related illnesses, depression, and anxiety is partially associated with our increasing alienation from nature.

Unless one chose to live off the grid it is impossible to avoid some hours of life spent in an artificial setting, tied to technological devices.

Technostress affects most of us (Fisher & Riedl, 2017). Technostress can be understood from a well-known psychological theory describing stress management.

This theory introduced by two psychologists, Lazarus and Folkman's (1984) is called the transactional model of stress. The theory explains that the negative effects of stress are dependent more on how someone understands their stress, in other words, do most of us feel we can cope with the stress in our lives or do we feel overpowered by it.

By all accounts, a little time in nature is likely to increase our ability to feel that we can, indeed, cope with our day-to-day stress.

Time in nature is one ready resource available to most people of all ages and backgrounds. In other words, hours spent on the computer in an antichlorine environment may be perceived as stressful but the stressors can be seen as more manageable and bearable if at the day one can look forward to a walk in the woods, in a park, or on the beach. As Ralph Waldo Emerson claimed in his 1836 essay Nature – "In the woods," he wrote, "I feel that nothing can befall me [...] which nature cannot repair."




Jasmin Tahmaseb McConatha, Ph.D. is Professor of Psychology at West Chester University of PA. Her work addresses well-being across adulthood with an emphasis on stress, aging, and culture. She teaches, conducts research, and advocacy work promoting the well-being of adults from diverse backgrounds. Her work addresses healing and resilience, the power of green and blue spaces and community, coping with stress, chronic illness, grief, loss, loneliness and isolation particularly among at risk older adult populations. She has written many published research articles and four books. Her work has appeared in magazines and newspapers including the Philadelphia Inquirer and the New York Times. She writes a blog for Psychology Today on well-being and aging and coordinates WCU's program in the World Health Organization Global Consortium of Age Friendly Cities and Community and AARP's Livable Cities for all People.

When I was growing up, each weekend we would go for a picnic in the mountains or the woods. These weekend activities, where we would spend a few hours away from everything that needed to be done, were healing, connecting, and rejuvenating. This was before we took our cell phones and iPad, so the day was truly "off the grid".

Americans today have fewer vacation days than any other technologically advanced country. Studies show that many Americans are even afraid to take the vacation days they have earned for (a) fear of falling behind in their work or (b) being perceived as unmotivated. When Americans do manage to get away, they stay "connected" through computers, iPhones, and iPads. Vacations become as frantic as workdays. People return to work, not renewed and refreshed. Spending a day truly in nature can improve immune functions, prevent illnesses, and maintain and promote health.

Ecotherapy or nature therapy is free, we only need to make time for it. A 2007 study in England found that a daily dose of walking outside could be as effective as taking antidepressant drugs. Time spent in nature also has no side effects. It will reduce stress and promote healing.




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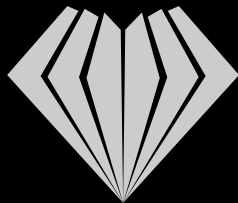


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Weldon Birch to Receive the CSDA Lifetime Achievement Award

Long-time CSDA member and industry advocate, Weldon Birch of Cal-West Concrete Cutting, Inc., has been selected as the CSDA Lifetime Achievement awardee. Weldon, who continues to be involved in the management of his concrete cutting business for over 57 years, will be honored at a ceremony during the CSDA Annual Conference.



For More Information
Contact: Joanne Kubinski, Executive Director
Email: info@csda.org
www.csda.org

OSHA Heat Standards

Occupational Safety and Health Administration's (OSHA) proposed heat injury prevention standard is now published on the Federal Register website and open for public comment. The deadline to submit feedback is Monday, December 30.

The Federal Register website is www.federalregister.gov



The Guide on Safe Use of Diamonds Segmented Tools

The IACDS presents a comprehensive guide designed to provide essential knowledge on the safe and effective use of diamond tools. Created in collaboration with the Federation of European Producers of Abrasives (FEPA), this publication aims to enhance industry standards and serve as a key educational tool for professionals at all levels.

Within its contents, readers will discover a wealth of information, including an introduction to different families of diamond tools, detailed risk assessments, and practical recommendations to ensure the health and safety of all workers involved.

Julie White, the coordinator of the guide, shared her thoughts on this collaborative achievement. "It was a real show of common ground and knowledge, with the industry pulling together in the same direction."

She also highlighted the significant contributions from specialists involved in the project and how this effort reflects the close ties between IACDS and FEPA.

The guide covers key topics such as safe handling procedures, proper tool usage, and the latest industry best practices. It is intended to be a valuable reference for improving safety and operational efficiency, making it a must-read for anyone working with diamond tools.



For More Information
Contact :IACDS
Email: info@iacds.org
www.iacds.org

Introducing Justin Dean to ICS Diamond Tools & Equipment

We are thrilled to announce that Justin Dean has joined us as a Regional Sales Manager, supporting our ICS, Merit, and Pentrunder product lines in Northern California and Northern Nevada. With several years of experience in the stone industry—including rock fabrication, veneer cutting, and building hearths and fireplaces—Justin brings valuable expertise to our team.

Outside of work, Justin enjoys fishing, outdoor activities, and golfing. He and his fiancé have three kids, two cats, and a Golden Retriever named Hero. A passionate football fan, he cheers for the Miami Dolphins.

We look forward to welcoming Justin and are excited about the fresh perspective he brings to the team!

To contact Justin, please email: justin.dean@oregontool.com



For More Information
Contact: ICS Diamond Tools & Equipment
Tel: 800-321-1240
www.icsdiamondtools.com

Taylor Chatterton Joins Brokk as West Coast Service Technician

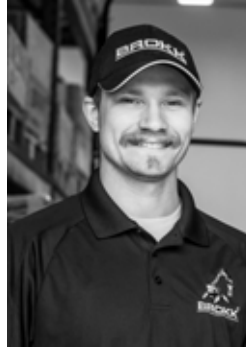
Brokk, the world's leading manufacturer of remote-controlled demolition machines, has hired Taylor Chatterton as a service technician. His position serves the West Coast, where he will also provide training and jobsite assessments for Brokk and Aquajet customers.

"Our customers on the West Coast now have access to a dedicated service technician for both Brokk and Aquajet products," said Lars Lindgren, president of Brokk, Inc. "Taylor brings unique experience as someone who has been both an operator and mechanic during these heavy equipment projects. As an operator of heavy equipment, he knows what types of challenges our customers are facing. This allows him to help them decide on the best machine for the job while also providing onsite service for our machines."

Chatterton, based in Monroe, Washington, will provide service for rental customers as well as on-site service and support for Brokk and Aquajet machines. He will also provide basic training to operators, including showing them the machine capabilities, how to operate the Brokk and how to complete routine maintenance items. Chatterton will consult with operators to assess jobsite conditions and make recommendations on machines, attachments and other equipment for the job.

Chatterton's background involves operating and maintaining equipment in the mining, demolition and construction industries. This experience directly applies to Brokk machines, which are often used in the same industries for the same jobs.

"Brokk customers face some of the most challenging jobs in their industries," Chatterton said. "Brokk and Aquajet have some of the most cutting-edge technology on the market, which makes these jobs easier and safer. I'm excited to help train operators on their machines and offer service and support to maximize our customers' uptime."



For More Information
Tel: 800-621-7856
Email: info@brokkinc.com
www.brokk.com

Mitch Acton Joins DITEQ Corporation as a Midwest Sales Manager

We are excited to announce that Mitch Acton has joined the DITEQ Team as a Midwest Sales Manager for Tennessee, Kentucky, Ohio, Indiana, and East Michigan. DITEQ Corporation is a leader in innovation with the new Generation 10 ARIX Diamond arrangement technology, G7 Chainsaws with QT systems, Brute extra heavy-duty diamond chain, DRS High Cycle, and the exclusive North American Distributor for both the HYCON Hydraulic line and the SHIBUYA BLU-DRILL series. DITEQ is growing in new technologies, market share, and our DITEQ team. Mitch is a valuable addition to our team.

Mitch Acton has been working in sales since 1994. He spent 25 years as a territory sales manager for DDM Concut before becoming the face of Action Diamond Supply in Tennessee. Now, Mitch will be able to leverage his extensive skills and relationships as the newest member of the growing DITEQ sales team.

To contact Mitch, use email: macton@diteq.com

For More Information
Contact: Mike Orzechowski
Tel: 816-447-6161
Email: mikeo@diteq.com
www.diteq.com



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Proceq Welcomes David Dalley as Director of Sales - Canada

Proceq, a Screening Eagle Company, proudly announces the newest addition to its Sales Team, David Dalley. Joining as the Director of Sales for Canada, Dalley brings a wealth of experience and technical acumen to further enhance Proceq's leading portfolio of GPR, NDT sensors and software products for advanced concrete inspection, subsurface utility investigation and more.

A graduate of Dalhousie University with a Bachelor of Commerce, he spent 15 years with Hoskin Scientific as a Senior Account Manager focused on instrumentation solutions for Concrete, Asphalt and Geotechnical testing applications. David brings professional experience in Construction Materials Testing, Ground Penetrating Radar and Concrete Laboratory Testing.

Dalley states "The innovations Proceq has made in GPR, NDT and software are cutting-edge, forward-thinking and offer the most comprehensive solution to infrastructure inspection and monitoring available in the market. I am very excited to join the team and bring awareness to the solutions we offer."

Proceq looks forward to the invaluable contributions David Dalley will undoubtedly make as he embarks on this exciting new chapter within our Sales Team.



For More Information

Contact: David Dalley

Tel: 604-782-2594

Email: david.dalley@screeningeagle.com

Joseph Cammerota Jr. Steps Up to Role as N.E. Sales Manager for the K2Sanders Team

K2Sanders is pleased to announce that Joey Cammerota has assumed the role of territory manager. Joey will be responsible for the N.E. market.

Joey has been with K2 Sanders for 10+ years working in customer service, IT & marketing. Joey has considerable experience in customer relations & product applications.

Joey's hobbies include ice hockey, golf & photography. He currently resides in Ephrata, Pa. with his wife Krista & 3 year old daughter Everly Grace.



For More Information

Contact: Joey Cammerota

Tel: 678-641-9678

Email: joey@sanderssaws.com

www.sanderssaws.com

Concrete Sawing & Drilling Safety Week Returns Jan. 27-31 2025

Ground Penetrating Radar Systems (GPRS), the country's largest infrastructure visualization company, has announced that Concrete Sawing & Drilling Safety Week (CSDSW) 2025 will run January 27 - 31.

Since 2018, GPRS has sponsored this safety initiative to provide free training to construction crews across the country, helping them mitigate the risk of silicosis and the other dangers of cutting or coring concrete.

During CSDSW, GPRS safety professionals travel the country providing safety talks – along with breakfast or lunch – to construction crews of all sizes.

To date, GPRS has educated over 25,000 construction professionals through this annual program. In 2024, over 120 companies across 23 states proved their dedication to the safety of their workers by hosting CSDSW talks on their job sites.

"CSDSW is an amazing event due to its ability to bring education directly to the job site and the workers that need it most," said GPRS Western U.S. Sales Director Dave Mulcahey. "Silica dust exposure, post-tension cables, electrical shock, and so many other dangers associated with cutting and coring are serious issues that cause injuries and fatalities. CSDSW allows workers to understand the issues, but also prepares them with how to avoid those dangers and go home safely at the end of every day."

Silicosis will be a focus of this year's CSDSW presentations.

For More Information

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Email: Christine.Potter@

gprsinc.com

www.gp-radar.com/safety/
concrete-safety-week



DITEQ Corporation Announces New HYCON Premium Hydraulic Motor

The New HYCON Premium Hydraulic Motor series is available on hand saws, ring saws, underwater grinders, and trash pumps. It is designed to withstand three times the backpressure of industry-leading hydraulic motors, helping to minimize downtime caused by blown shaft seals. This motor series features heavy-duty shaft bearings that increase load capacity, extending the motor's lifespan in the demanding conditions of our industry.

Additionally, the compact, precision-machined, high-strength, lightweight aluminum alloy motor body reduces the overall weight of the tool. The ports are machined directly into the motor, which reduces the number of external pipes and fittings, minimizing potential leak points and increasing the overall durability of the tool. Trust in HYCON for unparalleled reliability and performance in your hydraulic tools.

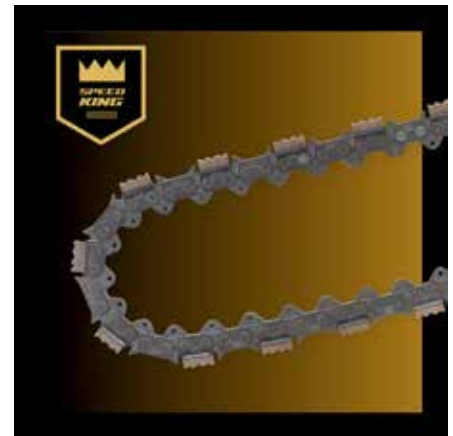


For More Information
Contact: Mike Orzechowski
Tel: 816-447-6161
Email: mikeo@diteq.com
www.diteq.com

ICS Introduces Speed King™ Diamond Chain for Concrete

Engineered for the professional concrete cutter that prioritizes speed and productivity. The new Speed King™ Diamond Chain for cutting concrete delivers up to 20% faster cutting when compared to the FORCE4® Premium S chain. Featuring cutting-edge Trident™ Segment Technology with Titanium coated diamonds, this new chain from ICS delivers best-in-class cutting performance that drives productivity gains and operator efficiency that enhances profitability on every job. Cut through the competition with Speed King™ and reign supreme in efficiency and results.

For More Information
Contact: Jessica Gowdy
DeMars
Email: ics.marketing@oregontool.com
icsdiamondtools.com



DITEQ Introduces HYCON's New 9" Hydraulic Hand Grinder

DITEQ Corporation is excited to introduce the NEW HYCON 9" Hydraulic Hand Grinder, designed for high-performance grinding and cutting applications. This hydraulic hand grinder is powered by the NEW HYCON Premium motor, ensuring reliability even in tough working conditions.

It boasts significantly higher power-to-weight ratios compared to comparable electric hand grinders. The grinder features a customized hydraulic relief valve that minimizes kickback, enhancing safety during operation. It can be configured for both right- and left-handed use and has an ergonomic, compact design suited for aggressive grinding or cutting tasks.

Due to their sealed construction, these hydraulic hand grinders are ideal for wet locations or underwater use. They are also excellent for confined spaces, as they pose no electrical hazards and emit no exhaust fumes near the operator. Cooling is managed through a hydraulic link to the power pack, which can be positioned away from the working area. Additionally, the motor is considered explosion-proof.

The grinder operates at 5-10GPM / 1740 PSI (with a maximum of 2300 PSI) and is rated at 3000 RPM at 10GPM. Don't settle for less—choose the HYCON Hydraulic Hand Grinder for superior performance and safety in every job.



For More Information
Contact: Mike Orzechowski
Tel: 816-447-6161
Email: mikeo@diteq.com
www.diteq.com

Husqvarna Optimizes Range of Large Floor Grinders

From top to bottom, these robust and powerful grinders are packed with features from the consolidation of three product lines, designed for maximum comfort, efficiency and reduced maintenance costs.

Each model has a hermetically sealed grinding head and electrical cabinet design, preventing dust or water from intruding and damaging components. This feature provides superior reliability and low maintenance.

Every model features EZChange™ - a hassle-free system for changing diamond tooling. In addition, some models feature EZChange Airflow. The EZChange tool holder with Airflow technology creates an increased and controlled airflow around the tools. This cools the tools and directs dust towards the extractor.

Most efficient models (PG 8 DR | PG 8 XR | PG 8 D | PG 5)

The most efficient planetary floor grinders are designed for all types of flooring applications such as texturing, preparing, grinding and polishing. These models achieve consistent scratch patterns and smooth, even surfaces with minimum effort. The main features include:

- New remote control (PG 8 DR & PG 8 XR)
- Dual Drive Technology™*
- EZChange Airflow
- Integrated weights with three preset positions

*Not available on PG 5 model

All-around models (PG 8 S | PG 6 S)

The all around models are versatile, three-disc planetary floor grinders suitable for most applications - from coating removal to grinding and polishing on concrete and natural stone.

"Now it's easier than ever to find the right machine and leave the best results on the floor," says Gustav Berggren, Product Manager, Floor Grinders.

From newcomers to floor-grinding experts, with this range operators can find the perfect machine.

For More Information

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September Issue Update

Dr. Ryan Rindlisbacher wrote the article, *Running a Small Business is Hard. Be Smart About It*, in the September 2024 issue of Concrete Openings.

Dr. Ryan Rindlisbacher has been a software developer since 1996, working in both the custom software and vertical market spaces. Ryan cofounded CenPoint in 2009 working specifically with concrete cutters and affiliated companies. His specific focus has been on increasing efficiency through technology and workflow optimization. Ryan holds a Ph.D. in Computer Science, a master's degree in Business Administration, and a bachelor's degree in Information Technology.

The editorial staff apologizes for this oversight.



For More Information

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www.cenpoint.com

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10 Reasons Why Construction is Slow to Adopt Tech



While the construction industry is ready and willing to embrace digital transformation, one must understand all the challenges before entering this space.

As the world speeds into the digital era, every industry faces an extensive choice: adapt or get left behind. Construction is one of those industries known for sticking to the old ways of doing things. But even here, change is knocking at the door, pushing construction companies to get with the times and embrace digital technology.

As the CEO of a software development agency and a passionate advocate for innovation in construction, I've spent the past seven years working to bridge the industry's digital gap. I want to address the main challenges preventing or slowing the industry's digital innovation.

I will provide examples from my experience for every challenge to avoid sounding like an abstract research article.

1. Change Resistance: Construction has been done the same way for ages. Convincing people to switch to digital tools is like convincing your grandma to use a smartphone. People are hesitant and need a lot of convincing. With the average age in the U.S. construction industry at 42 and rising, older workers especially resist change. They often find it challenging to adapt to high-tech solutions and fear job displacement.

Our story: The owners and senior management are motivated and want to introduce new processes. Middle management and senior specialists who have worked there for decades resist change. The most significant resistance comes from IT departments, which are the most bureaucratic in construction companies.

2. Regulations: Are a big deal in the construction world, with each state having its own rules. To break into the industry, you've got to dive into state-specific regulations and tackle legal hoops. In this tightly regulated field, having a flashy AI-powered product won't mean much if it can't handle every tiny detail of state regulations.

Our story: Simple tasks like tracking labor's meals and breaks on a construction site require more than 20 settings to cover all possible cases because of state-based regulations.

3. Lack of standardization: In contrast to the above point, while the industry is very regulated, it lacks standardization. The internal processes vary from company to company. While

they operate in the same industry and do the same job, every company has different internal processes. The process change becomes more complicated since a construction project typically involves multiple players, and you can't force the same process/tool to be adopted by all players.

Our story: After onboarding our first two to three customers, we thought we had already covered all industry cases, and everything should go smoothly. However, upon reaching 40 customers, our analysis revealed that less than 10% joined without customization.

4. Unions: You should never underestimate the role of unions. While unions are crucial in advocating for workers' rights and safety standards, they can also hinder the adoption of new technologies and practices. At times, unions may resist changes that could alter traditional job roles or require additional training for their members. Consequently, navigating the landscape of construction innovation often involves engaging with unions, understanding their concerns, and finding ways to collaborate effectively. This requires a delicate balance between embracing progress and addressing the legitimate concerns of workers, ensuring that innovation benefits both the industry and its workforce.

Our story (not fun this time): Once, with our team, we were all set to pop the champagne to close our biggest deal, but it shouldn't have happened. We didn't consider the power of unions in California, and they simply rejected accepting any process change on their jobsites.

5. Safety: Safety cannot be overstated in the construction industry. Given the inherent risks involved, safety should be a top priority in every aspect of project implementation. While a comprehensive discussion of safety is beyond the scope of this post, it's essential to highlight three critical areas for consideration in construction projects.

Firstly, ensuring the availability and proper use of appropriate tools and safety equipment is necessary for minimizing risks on-site. Secondly, compliance with specific certifications mandated by OSHA (Occupational Safety and Health Administration) is crucial to meet regulatory standards and maintain safe working conditions. Lastly, day-to-day procedures include labor training, daily instruction sessions, safety checks, attestations, and safety reports.

While it could sound like safety is one of the challenges

preventing change, it also is one of the critical areas where new technology and AI can have the most significant impact.

Our story: When we think about safety, we first think about hard hats and other equipment that supports labor work on construction sites. But quickly, we learn that different forms, attestations, and other bureaucracy are equally important. This safeguards employers during inevitable incidents on jobsites.

6. Legacy software: A significant challenge in the construction industry is the prevalence of old legacy software. Many construction companies rely on decades-old tools, some still stuck in the on-premises realm and slowly transitioning to the cloud.

Even a simple API change needed for integration could take years, or the provider may claim it's not feasible. For instance, giants like QuickBooks, SAGE, and Vista offer cloud-based solutions. However, a significant portion of their customer base remains hesitant to migrate from their traditional on-premises solutions.

Our story: Over 70% of our integration efforts and resources were consumed by maintaining outdated on-premise integrations. A fresh example was QuickBooks Desktop integration, which we implemented through a third-party integrator company that discontinued support, leaving us just three short months to build our integration.

7. Tech savviness: In the world of construction innovation, one of the significant challenges is the varying levels of tech savviness among employees. While some workers readily embrace new digital tools, others may struggle to adapt. This discrepancy can prevent the smooth adoption of innovative solutions. Moreover, the industry's varied workforce adds another layer of complexity to tech integration efforts.

Overcoming this barrier requires intense training programs and ongoing support to ensure all employees possess the required skills.

Our story: Quickly after shipping our first application version, we learned that in the U.S., there is a significant labor force that either doesn't speak English or is illiterate. So, we quickly adopted an intuitive UX and added large icons for visibility.

8. Unique Field Conditions: Are the next challenge in the world of construction innovation. One big problem is ensuring a good internet connection at construction sites. Sometimes, sites are in remote areas or crowded cities, making it hard to get a strong signal. Also, workers need tools and tech to move around quickly as they work in different parts of the site. Plus, sometimes there's no internet at all, so tools need to be able to work offline. Another thing to consider is battery life — tools must last long in harsh conditions. These challenges highlight the need for intelligent solutions that work well in real-world construction settings.

Our story: After shipping the first version of our mobile application, we quickly learned that “we have network connectivity” doesn't mean “we always have network

connectivity” (enlightening, right?). Very soon, full autonomy offline-mode support becomes critical.

9. Long adoption process: All construction projects are time-critical. Before adopting a new process or integrating new software, it could take months to make decisions and select the right software, then a few more months for training and the pilot project.

Finally, there's the waiting game for the final decision and optimal transition period, adding further delays to the adoption process.

Our story: Our first big customer onboarding took 18 months; we naively hoped this was an anomaly but soon discovered it was a norm. Typically, the slow due diligence decision-making process takes up to six months. Then come some change requests, extending the timeline by another six months or more. Only after that, with training and small pilots, does the total adoption take over 18 months. You may see key people and stakeholder changes in this period, leading to duplicate efforts and wasted resources.

10. Jargon: Lastly, let's not forget about construction jargon. It's like a language of its own; without it, it's hard to enter the conversation. When construction folks start talking, especially to those from other industries like tech, it can feel like they're speaking a different language altogether.

My story: I felt overwhelmed by all the construction terms when I first started. Distinguishing between shell and general contractors or understanding the nuances of salaried, hourly, and piece-rate payroll structures was like white noise in my ears.

Thankfully, my colleagues from the construction industry patiently helped me navigate this jargon jungle and make sense of it all. While the construction industry is ready and willing to embrace digital transformation, one must understand all the challenges before entering this space. After seven years of working on construction digitalization, speaking to hundreds of people, and visiting construction field projects, I have only started understanding their daily challenges and jargon.

Nevertheless, the future of construction is bright, and AI is leading the way. By embracing AI and investing in new technologies, construction organizations can improve efficiency, reduce costs, and stay ahead of the competition.



Article reprinted with permission from *For Construction Pros*
Written by Yerem Khalatyan July 10th, 2024 from InConceptLabs
www.forconstructionpros.com



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CSDA's Operator Certification is a comprehensive five-day program combining detailed classroom instruction with essential on-slab demonstrations and evaluations of advanced concrete cutting techniques. Safety, proper equipment use and efficiency are all emphasized.

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- Successful completion of CSDA Cutting Edge, Slab Sawing & Drilling 101, Wall Sawing 101 or Wire Sawing 101
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- Successful completion of 10-hour OSHA Construction Safety course
- No more than one lost-time injury within the last three years
- Unrestricted driver's license
- Negative drug test within 30 days of taking the course

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A COMPANY MUST MEET THE FOLLOWING CRITERIA TO ACHIEVE ACCREDITATION :

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\$3 – 5M	\$2,595	\$1,595	\$500
\$5 – 10M	\$3,295	\$1,595	\$500
> \$10M	\$4,150	\$1,595	\$500

ADDITIONAL BRANCH LOCATIONS

- 1-5 Branches \$160 per location
- 6-10 Branches \$110 per location
- 11-15 Branches \$55 per location

Pricing: Manufacturers, Distributors & Affiliates

GROSS SALES	MANUFACTURER	DISTRIBUTOR	AFFILIATE*
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\$1 – 2M	\$2,050	\$1,550	\$995
\$2 – 3M	\$3,050	\$2,295	\$995
\$3 – 5M	\$4,900	\$3,625	\$995
\$5 – 10M	\$6,600	\$3,625	\$995
> \$10M	\$8,250	\$3,625	\$995

*Affiliate is a person, firm, corporation, society, government agency or other providing services to the concrete cutting, polishing and imaging industry

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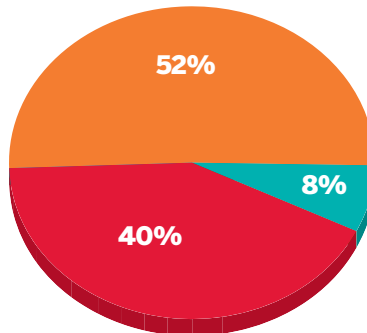


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A poll of *Concrete Openings* subscribers revealed that 66% pass on their copy of the magazine to at least one other person, with almost 25% stating that the magazine is passed on to four or more people each issue. This translates to an average of four people reading each issue of the magazine for a total readership per year of approximately 60,000.



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Las Vegas, NV

Website: www.worldofconcrete.com

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Bozeman, MT

Tel: 217-528-3275

Email: info@csda.org

January 20-23, 2025

World of Concrete

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Plaza San Antonio Hotel & Spa,

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CSDA Committee Spotlight: Standards & Specs Committee



While it may not be one of the more glamorous committees, the Standards & Specs Committee plays an integral role for the association. The CSDA is a highly specialized trade with many work practices narrowly focused in the generalized field of ‘construction.’ This committee is charged with publishing documents to reflect the CSDA practices that clarify and define this niche specialty trade.

Documents are classified in 5 distinct categories: Standards, Specifications, Tolerances, Best Practices and White Papers to help the specifiers, general contractors, and members establish a clear SOW and best practices around the various aspects of concrete cutting. The committee knows the importance of up-to-date and relevant standards and how that impacts the industry.

Not only do these standards help set quality benchmarks, they also help maintain consistency and reliability throughout the concrete cutting industry. Adhering to established standards builds trust among members, partners, clients, stakeholders, and the public, enhancing CSDA’s reputation of being a leader in the field.

Specifications often include safety requirements that protect users and stakeholders from potential hazards. Clear specifications streamline processes, reducing confusion and increasing operational efficiency. And they can be guidelines to help contractors improve business practices.

Knowing that equipment, processes, legal requirements and safety standards are always evolving, the standards and specs committee is dedicated to keeping the current list of recommendations up-to-date. The committee reviews up to five different standards each year, revising each one to meet the latest protocols and best practices. They are also responsible for reviewing any suggestions and crafting any new standards as necessary.

This committee is active both at in-person meetings and via conference calls. The committee urges fellow like-minded individuals to join and participate, especially safety officers or engineers of any member company. To find out more or to join the committee, reach out to info@csda.org.



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