

## AGACAD BIM Software for Precast Concrete

AGACAD's BIM software allows users to create detailed models of precast concrete elements in Autodesk's Revit®. Prefabricated concrete walls, slabs, beams, and columns can be modeled to BIM level of development (LOD) 400 (an LOD 400 element is modeled at enough detail and accuracy for fabrication of the represented component without referring to notes or dimension callouts). Elements can include connection details, plates, grout tubes, and anchors. A floor can be divided into regions, and floor segments can be modeled as solid, hollow-core, or double-tee elements. Walls can also be divided, and joint widths can be defined between precast wall elements. Users can also decompose multilayer walls and check, edit, and write wall parameters. Documentation for production and assembly can be prepared within the program. The software also uses rules and templates to create element views with automatic dimensioning and to generate bills of materials and shop drawings.

—AGACAD, [www.aga-cad.com](http://www.aga-cad.com)



## COMANSA 21CM750 Crane

The 21CM750 flat-top, modular crane can be used for prefabricated construction and construction of power plants, bridges, and other large-scale infrastructure projects. It is available in two models, with maximum loads of 37.5 and 50 tonnes (41.3 and 55.1 tons). The 37.5 tonne model can also load 50 tonnes by changing the front trolley and hooks. The jib and counterjib sections have six different configurations to enable adaption to different jobsite conditions, and they are optimized for fast and safe assembly and disassembly. The 21CM750 includes the Cube Cabin, a spacious cabin that won the iF Design Award 2018. As certified by Germany's TÜV SÜD, the 21CM750 is designed to comply with EN 14439 Cranes – Safety – Tower Cranes.

—COMANSA, [www.comansa.com](http://www.comansa.com)



## Mecalac TA3SH Power Swivel Site Dumper

The TA3SH Power Swivel Site Dumper is designed to deliver superior versatility and performance on small or confined jobsites. The TA3SH is 13 ft (4 m) long and 6 ft 1 in. (4.4 m) wide. The Power Swivel technology features forward- and swivel-tipping mechanisms, allowing the load to rotate 90 degrees on either side before being tipped. The TA3SH's payload capacity is 6613 lb (3000 kg), making it ideal for concrete construction. All Mecalac Power Swivel site dumpers feature a heavy-duty locking device, which keeps the skip facing forward while on the move. Each Power Swivel site dumper meets the latest emissions compliance standards. All models are equipped with Tier IV engines rated at under 25 hp.

—Mecalac, [www.mecalac.com](http://www.mecalac.com)

## EarthCam AI-Powered Visual Data for Procore Daily Log Automation

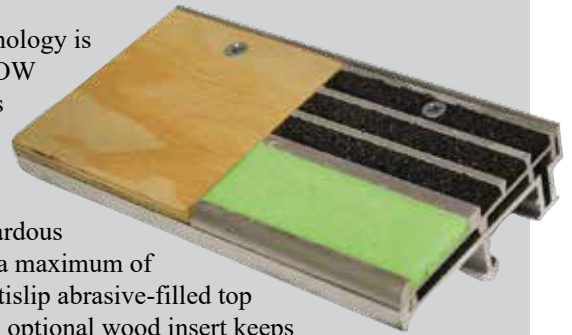
EarthCam announced updates that help maintain a daily log of active jobsites with its Procore integration. EarthCam cameras can now deliver new levels of informative data to construction teams. Data can include AI image recognition of jobsite equipment and vehicle tracking, with up to 19 vehicle classifications automatically populated into hourly log entries within Procore; weather conditions from the Jobsite Weather Station, a 4G LTE wireless, solar-powered sensor; and visual documentation of waste and dumpster conditions. In all cases, content can be exported to a PDF or CSV file.

—Earthcam, [www.earthcam.net](http://www.earthcam.net); —Procore, [www.procore.com](http://www.procore.com)

## NITEGLOW Two-Stage Safety Nosing

NITEGLOW® two-stage antislip stair nosing with glow-in-the-dark technology is ideal for exit path markings, steps, and leading edges of landings. NITEGLOW meets NYC Local Law 26, 2015 IBC, and 2015 IFC code compliance and is well suited for either new construction or retrofit interior stair applications. Heat-treated corrosion-resistant aluminum substrate and a nearly diamond-hard aluminum oxide filler ensures long tread life under heavy pedestrian traffic. The bright, long-lasting photoluminescent epoxy filler is free of hazardous and radioactive substances. NITEGLOW is available in lengths to order, to a maximum of 8 ft (2.4 m). NITEGLOW two-stage safety nosing includes a replaceable antislip abrasive-filled top insert and a mill finish extruded aluminum base with a sure-hold anchor. An optional wood insert keeps the aluminum base clean during initial construction. Protective tape is also available.

—Wooster Products, [www.woosterproducts.com](http://www.woosterproducts.com)



## Neuvokas Corp GatorBar Glass

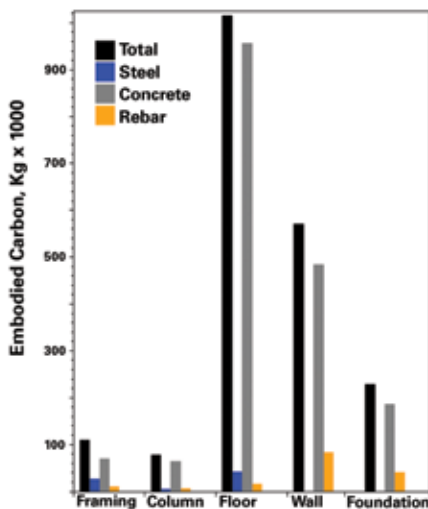
Four years after it introduced GatorBar® Basalt to the construction industry, Neuvokas announced the addition of GatorBar Glass to its product family. The new product, a glass-fiber reinforced polymer (GFRP) reinforcing bar, meets the ASTM D7957/D7957M specification. GatorBar products are manufactured with an advanced sliver-reducing, polyester-free resin system, and they provide a low-cost reinforcing solution for normal and corrosive environment applications.

—Neuvokas Corp, [www.neuvokascorp.com](http://www.neuvokascorp.com)

## MobileDemand xTablet Flex 10A with Android

The xTablet Flex 10A with Android is an entry-level, lightweight tablet weighing only 2.4 lb (1 kg). The Flex 10A has built-in features like a briefcase handle and back hand strap for easy portability, along with a patented quick-release snap mount system. With its durable protective case and scratch- and shatter-proof screen protector, an xTablet can survive drops and perform reliably in dusty conditions. These tablets are equipped with Bluetooth, Wi-Fi, front- and rear-facing cameras, and a long-lasting swappable battery. The 10.1 in. (260 mm) touchscreen display works with a gloved finger or stylus, while an optional keyboard converts the tablet into a fully functional 2-in-1 style laptop. Requiring minimal IT support, Flex 10A for Android tablets are easy to set up and manage.

—MobileDemand, [www.ruggedtabletpc.com](http://www.ruggedtabletpc.com)



(photo courtesy of Thornton Tomasetti)

## Thornton Tomasetti Beacon

Beacon is an embodied carbon measurement tool. The tool gives users the ability to calculate embodied carbon, allowing for more informed decisions throughout the design process. Beacon was introduced after an intensive, 3-year research-and-development process led by Thornton Tomasetti's CORE studio. The tool is an Autodesk Revit plugin that generates visualizations of a project's embodied carbon quantities by material type, building element, and floor levels, allowing designers to have insights as to where embodied carbon can be minimized. It also grades the project's embodied carbon levels against the Carbon Leadership Forum's database of models by building type. Beacon is currently available for download at <https://core-studio.gitbook.io/beacon>.

—Thornton Tomasetti, [www.thorntontomasetti.com](http://www.thorntontomasetti.com)

## CFS 150-5 Steel Fibers Used in Chicago Office Tower

Concrete Fiber Solutions (CFS), along with Prairie Material and Goebel Forming, completed a massive floor installation at the 110 N. Wacker building in Chicago, IL, using steel fiber-reinforced lightweight concrete. The high-rise features composite metal deck floors with lightweight concrete reinforced with 25 lb/yd<sup>3</sup> (14.8 kg/m<sup>3</sup>) of CFS 150-5 fibers. The use of CFS 150-5 steel fibers improved worker safety conditions and installation efficiency for the office tower. Manufactured in Chicago, CFS fibers are free from rust, oil, and other contaminants and are designed to meet or exceed the requirements of ASTM A820/A820M. CFS 150-5 fibers are 1.5 in. (38 mm) long with an aspect ratio of 38 and are deformed per the ASTM A820/A820M specification.

—Concrete Fiber Solutions, [www.concretefibersolutions.com](http://www.concretefibersolutions.com)



## Book Notes

### *fib* Bulletin 91: Floating Concrete Structures by Task Group 1.2

This bulletin is the first document prepared by Task Group 1.2, Concrete Structures in Marine Environments. Floating concrete structures allow marine spaces to be used for important developments for urban areas, industrial plants, infrastructure, and energy production. This bulletin presents applications, projects, and conceptual ideas, and it discusses the potentialities of and innovations in structural concrete in marine environments. The use of structural concrete is becoming essential in these kinds of applications in terms of cost, durability, and sustainability. The floating structures presented in this bulletin may inspire future applications, which will present a challenge not only for structural designers but also for administrations, construction companies, and industrial entities.

*CHF 100 (non-members); 100 pp.; ISBN 978-2-88394-134-2*

—*fib*, [www.fib-international.org](http://www.fib-international.org)



## Products & Service Literature & Videos

### ACPA Safety Bulletin for End Hoses

The American Concrete Pumping Association (ACPA) offers a short safety bulletin titled “Safe Practices for the Intended Use of Concrete Delivery and End Hoses.” The bulletin addresses the proper methods for using concrete delivery hoses and end hoses. End hoses have no additional mass at the discharge point, reducing the potential for serious injury should the hose move unexpectedly or whip as a result of the release of trapped air. Continually updating safety resources is part of ACPA’s mission to foster and promote a positive safety culture within the concrete pumping industry. The new safety bulletin complements the association’s safety library and is available for free download alongside many other safety-related downloads on ACPA’s Safety/Training webpage.

—American Concrete Pumping Association, [www.concretepumpers.com](http://www.concretepumpers.com)

# Product Showcase

## Decorative Concrete Products

### Allen Engineering Corporation RP235 and RP245 Polishing Riders

The RP235 and RP245 Polishing Riders are designed with high-volume concrete polishers in mind. These riding trowels achieve high rotor speeds and high torque while polishing, and they come equipped with special dolly jacks that ensure easy indoor transportation, as well as allowing for quick change of polishing pads. They are built on an edging riding trowel frame to allow users to get close to walls while polishing. Both models include 180 RPM for high-speed burnishing or polishing; 40 lb (18 kg) propane bottles for more operating hours; 25 hp Kohler PCH740 Propane Engines; 7 gal. (26.5 L) retardant tanks to allow for more water application during the polishing process; two-point, top-mount lifting systems; and four-point tie-downs. In addition, a power steering option also comes standard on the RP245.

—Allen Engineering Corporation, [www.alleneng.com](http://www.alleneng.com)



### Spyder Products Diamond Edge Universal Cut-Off Wheel

The Diamond Edge Universal Cut-Off Wheel measures 4-1/2 in. (114 mm) in diameter and features 0.045 in. (1 mm) walls that can cut through reinforcing bars, masonry, and more. These wheels feature a diamond abrasive edge combined with a shatter-resistant steel core. The edge and core together ensure safe operation, reduced dust and debris, and a longer working life. These wheels are designed for use on angle grinders with a maximum RPM of 13,000.

—Spyder Products, [www.spyderproducts.com](http://www.spyderproducts.com)



### W.R. MEADOWS POURTHANE NS

POURTHANE® NS is an elastic, low-modulus, one-component, moisture-curing, nonsag polyurethane sealant. It maintains flexibility while providing outstanding durability in horizontal and vertical applications. To better match a variety of possible projects, POURTHANE NS comes in 11 color choices, including white, off-white, gray, aluminum gray, tan, redwood tan, stone, limestone, medium bronze, special bronze, and black. Applications include joints between precast concrete panels. No mixing or priming is required for use with concrete or masonry. A digital, printable color chart is available online.

—W.R. MEADOWS, [www.wrmeadows.com](http://www.wrmeadows.com)



### Bon Tool Co. BonWay Urethane Mats

The BonWay™ Decorative Concrete division of Bon Tool Co. expanded its decorative concrete product line with the addition of over 60 new urethane texture mats as a result of Bon Tool's recent purchase of the operating assets of Specialty Concrete Products. This expansion nearly doubled the available BonWay standard mat patterns and added many specialty stamps, including animal track stamps, leaf stamps, oceanic stamps, fossil stamps, and letter and number stamps. Additional mat patterns will be added in the coming year.

—Bon Tool Co., [www.bontool.com](http://www.bontool.com)



## Milestones Fiber-Backed Form Liners

Milestones, Inc., offers lightweight, fiber-backed form liners in combination with their composite form core technology to transfer authentic detailed texture to concrete. They are flexible, reusable urethane liners with up to 5 in. (127 mm) of relief and detailed texture transfer. Carpet flooring from convention service companies is repurposed and used as the reinforcement backing for these form liners, keeping plywood out of landfills and reducing this product's carbon footprint. The liners weigh less than 3 lb/ft<sup>2</sup> (14.6 kg/m<sup>2</sup>), which makes them easy to handle and could in some cases allow a reduction in crane size on a jobsite.

—Milestones, Inc., [www.milestones-online.com](http://www.milestones-online.com)

## Lehigh White Cement AALBORG EXCEL

AALBORG EXCEL<sup>®</sup> is a self-leveling, fast-flowing, ultra-high-performance concrete (UHPC) premixed product developed under Lehigh White Cement's AALBORG INWHITE SOLUTION<sup>®</sup>. It may be combined with pigments and fibers, allowing users to balance project structure, function, and aesthetics. Properties such as high durability and high compressive strength (in the range of 140 MPa [20,300 psi]) make it suitable for architectural applications with thin and complex geometries. AALBORG EXCEL is based on FUTURECEM<sup>™</sup>, Cementir Group's newest binder patent technology. The technology behind EXCEL's binders does not include silica fume, quartz flour, slag, or fly ash—but the product still offers pozzolanic components from a sustainable source.

—Lehigh White Cement, [www.lehighwhitecement.com](http://www.lehighwhitecement.com)

## Nox-Crete Deco-Peel

Designed to remove old acrylic sealer from a decorative concrete installation, the Deco-Peel blanket system uses an engineered fabric saturated with a blend of environmentally friendly solvents that penetrate and soften decorative acrylic sealers. Deco-Peel solvents dissolve the worn-out acrylic sealer, then will evaporate from the surface. The blanket is placed down where the stripping is needed and saturated with Deco-Peel biodegradable stripper. Once it is dried completely—usually within 2 to 4 hours—the blanket can be peeled up and discarded after it has absorbed the acrylic resin. Treated surfaces can be resealed in as little as 24 hours. The product is ideal for spaces where damage to surrounding surfaces is a concern.

—Nox-Crete, [www.nox-crete.com](http://www.nox-crete.com)



## Buddy Rhodes Vertical Mix

Buddy Rhodes Vertical Mix<sup>™</sup> is a cement-based overlay that is easy to mix and apply to vertical surfaces for creating various textures by carving, sculpting, or stamping. The product is a lightweight, zero-slump formula and is used for creating themed environments, zoo and aquarium displays, decorative panels, and public sculptures. Vertical Mix is blended with RAMP<sup>™</sup> Adhesion and Cure Promoter to a clay-like consistency and then applied to a minimum 3/4 in. (19 mm) thickness. Once cured, Buddy Rhodes's line of pigments can provide an extensive array of color possibilities, and their glazes can also be applied to the cured concrete to achieve more color effects. Vertical Mix has been tested per ASTM E84 and meets Class A requirements. It is a water-based, nontoxic, animal-friendly product with no VOCs.

—Buddy Rhodes Concrete Products,  
[www.buddyrhodes.com](http://www.buddyrhodes.com)