

# Products & Practice

## MAJOR FLEX-MAT

MAJOR® FLEX-MAT® high-vibration wire screens enhance material screening efficiency and minimize material blinding and clogging. The high-vibration wire screens have individual wires that vibrate at a frequency between 6000 and 10,000 strokes per minute (SPM). The screen media pairs with the MAJOR Flex-Mat app, an integrated digital tool that provides monitoring and maintenance capabilities with real-time vibration analysis, data retrieval, and augmented reality function.

MAJOR also introduced an advanced polyurethane strip variant for the FLEX-MAT Modular series. This polyurethane strip improves screen media durability, extending its lifespan and effectiveness in wet and corrosive environments. Its chemical stability enables performance in challenging conditions, such as alkaline and acidic environments, particularly in limestone operations. The strips have extended wear life to reduce operational interruption.

—MAJOR, [www.majorflexmat.com](http://www.majorflexmat.com)



## Topcon RD-M2 Scanner

Topcon Positioning Systems, Inc., introduced a new version of its mobile Light Detection and Ranging (LiDAR) scanner, the RD-M2, which was built for road resurfacing applications. The scanner is part of the SmoothRide™ solution, designed to minimize road closures, shorten planning times, and optimize processes when evaluating road surfaces while also keeping crews safe. The scanner uses an integrated Global Navigation Satellite System (GNSS) receiver, and the new version includes the ability to track more satellite constellations for added accuracy and options on the jobsite.

—Topcon Positioning Systems, Inc., [www.topconpositioning.com](http://www.topconpositioning.com)

## Rapid Set Cement All Plus

Rapid Set® Cement All® Plus is a high-performance, rapid-hardening, multi-purpose concrete repair material with extended working time (20 minutes) for anchoring and doweling, formed work, and horizontal and vertical trowel applications. It is a blend of Rapid Set hydraulic cement, additives designed to match the color of typical existing portland cement concrete, and specially graded fine aggregates. It is mixed with water to produce a workable material where rapid strength gain and durability are needed. Cement All Plus reaches 4000 psi (28 MPa) compressive strength in 3 hours. Like Cement All®, Cement All Plus can be applied from featheredge to 4 in. (102 mm) thick. Both products adhere to stone, brick, block, and stucco in addition to concrete. They also provide freezing-and-thawing resistance for longer-lasting repairs in areas that experience significant temperature fluctuations. Cement All and Cement All Plus are both installed using traditional placement methods and can be floated or broom-finished in addition to troweled.

—CTS Cement Manufacturing Corp., [www.ctscement.com](http://www.ctscement.com)



Get  
Connected *with* **aci**



Visit [www.concrete.org](http://www.concrete.org)

# Products & Practice

## Doka Involved in Hyundai Electric Vehicle Plant Projects

Doka USA contributed to a three-building Hyundai Motor Company electric vehicle (EV) plant project near Savannah, GA, USA. Doka formwork systems were used for the site's module plant, stamping building, paint shop, and culverts.

Precision Concrete Construction, Inc., used Frami Xlife handset formwork for the module plant's concrete pit walls. Frami Xlife has a lightweight design, and it can be used both upright and horizontal to construct walls and footings, with its modular design making it adaptable to jobsite conditions.

Atom Concrete, Inc., and CONTEK Construction, LLC, used Doka's 10k Shoring System for the elevated lids in the stamping building. Doka optimized the shoring layout and increased the quantity of shoring and wall formwork to help shorten the job schedule by 3 months. For the pits and tunnel walls, the team used the Frami Xlife handset and Framax Xlife framed wall modular formwork systems because they are adjustable for shaping between placements. Both systems feature lightweight clamps and either versatile tie solutions (Framax) or fewer ties (Frami) to enable fast assembly.

Sys-Con LLC used 10k shoring for the paint shop's elevated lids and Framax for the walls. The team was able to adjust formwork layout to accommodate four major design revisions on site without needing Doka's assistance or a formwork redesign. For both the paint shop and the stamping building, Doka field service representatives provided systems training and a pre-placement inspection for the wall formwork.

—Doka USA, [www.doka.com](http://www.doka.com)

## Makinex Concrete Grinder

The Makinex Concrete Grinder for grinding, polishing, and finishing concrete surfaces features two-in-one edge and floor grinding abilities. A removable magnetic shroud provides edge grinding capabilities. The concrete grinder contains built-in dust control with an extraction port that accommodates a vacuum attachment, variable speed control with adjustable revolutions per minute (RPM) to match different surfaces, and power-off and overload protection. Compatible with standard 7 in. (178 mm) diamond or resin grinding discs, the tool removes surface coatings like epoxy and paint from concrete floors.

—Makinex, [www.makinex.com](http://www.makinex.com)



## S-22EZ Advanced Laser Screed Virtual Training Simulator

Powered by ForgeFX Simulations, the S-22EZ Advanced Laser Screed® Virtual Training Simulator delivers a training suite for Somero® Enterprises, Inc.'s S-22EZ Advanced Laser Screed. The S-22EZ features a 20 ft (6 m) telescoping boom, 360-degree machine rotation, and laser-guided controls. The machine can spread, level, and vibrate concrete in a single pass, making it effective for large-scale flooring projects. The training simulator offers lessons to help operators understand the machine in a risk-free environment. A digital replica of the S-22EZ provides a virtual environment that mirrors real world dynamics, supporting a transition from training to on-site performance. Operators gain proficiency on the S-22EZ's functionality by practicing tasks for screeding operations, boom movements, grade control, and transportation.

Developed on the Unity® and ForgeSIM™ frameworks, the simulator uses Unity's XR Interaction Toolkit (XRITK) capabilities and ForgeSIM's simulation engine to enable realistic physics, equipment modeling, and dynamic feedback systems. Designed for deployment on Meta Quest® hardware, the simulator employs Meta's hand-tracking capabilities for interaction and user mobility. Additional features include multi-user support and cloud-based performance tracking.

—Somero Enterprises, Inc., <https://www.somero.com>

—ForgeFX Simulations, <https://forgefx.com>

## Haptikos Exoskeleton

The Haptikos exoskeleton, which is part of the Haptikos ecosystem of integrated hardware and software, enables users to feel the sensations of different materials. Whether handling virtual objects in training or design, it makes digital environments feel tangible with a rise of 12 ms and a fall time of 55 ms. The exoskeleton has 24 degrees of freedom (DOF) per hand, with sub-millimeter motion accuracy and 8 hours continuous use. Each exoskeleton includes tracking sensors, haptic sensors, and kinaesthetic sensors. With these sensors, Haptikos tracks the movement of each hand joint to provide full control over motion.

The Haptikos app is the hub for connecting Haptikos exoskeletons and integrating their capabilities into projects and motion control, redirecting this data into the Unity® Software Development Kit (SDK). Through built-in artificial intelligence (AI) functionality, haptic\_OS automatically adapts pre-built libraries into new haptic extended reality (XR) applications in Unity, simplifying both integration and scaling. The app is available by three tiers of license.

—Haptikos™, Inc., <https://haptikos.tech>



## Milwaukee External TORX Socket Set

Milwaukee® Tool launched a 12-piece 1/4 in. (6 mm), 3/8 in. (10 mm), and 1/2 in. (13 mm) Drive External TORX® Socket Set. These sockets contain features including FOUR FLAT™ sides which deter rolling and are wrench compatible. The sockets come with a chrome plated finish for corrosion resistance and laser engraved size markings for better visibility. This set includes a storage rail for organization. Milwaukee sockets are backed by a lifetime guarantee.

—Milwaukee Tool, [www.milwaukeetool.com](http://www.milwaukeetool.com)

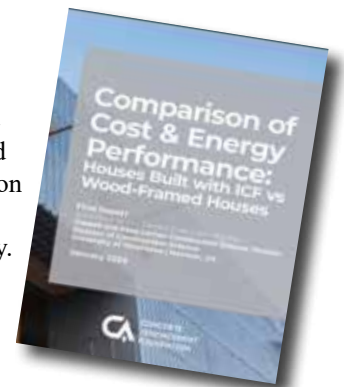
## Products & Service Literature & Videos

### *Comparison of Cost & Energy Performance: Houses Built with ICF vs Wood-Framed Houses*

by the Concrete Advancement Foundation

The Concrete Advancement Foundation (CAF) released a report titled “Comparison of Cost & Energy Performance: Houses Built with ICF vs Wood-Framed Houses.” The study was conducted by Somik Ghosh and Ben Bigelow from the Haskell & Irene Lemon Construction Science Division of the University of Oklahoma, Norman, OK, USA. It examined five houses in an Oklahoma neighborhood, assessing material costs, installation times, temperature data, and energy efficiency. The research highlights the need for alternative construction methods due to a shrinking workforce and emphasizes benefits like energy savings and storm resilience in tornado-prone areas. Furthermore, it provides insight into the potential benefits of insulated concrete forms (ICF) homes over conventional wood-framed houses. This research was funded by the CAF.

—The Concrete Advancement Foundation (CAF), [www.concreteadvancement.org](http://www.concreteadvancement.org)



# Product Showcase

## Digital Tools

### HCSS Insights

HCSS Insights turns raw data into actionable intelligence. The tool provides visibility across projects and is available as part of any current Heavy Construction Systems Specialists (HCSS) product subscription. HCSS Insights helps construction professionals track costs, revenue trends, and budget allocation; monitor job progress, equipment use, and workforce efficiency; optimize fleet performance; and analyze safety trends to mitigate risk. HCSS Insights is built on top of Microsoft Power BI and integrates data from HeavyJob, HeavyBid, HCSS Safety, and Equipment360 to deliver more than 80 out-of-the-box reports, allowing users to export and share reports and subscribe to receive up-to-date data. In addition to HCSS Insights, HCSS is merging its suite of products into one unified platform, enabling users to quickly navigate between HCSS products.

—Heavy Construction Systems Specialists (HCSS) LLC, [www.hcss.com](http://www.hcss.com)



### RedTeam Flex

RedTeam Flex is a cloud-based solution for end-to-end construction management. RedTeam Flex's updated preconstruction functionality and features are fully collaborative. The capabilities support those running construction management at risk (CMAR) projects and those looking to streamline their suite of preconstruction software tools. All project stakeholders can access project information and work on documents simultaneously.

The preconstruction capabilities and enhanced features include:

- A step-by-step guided workflow that provides a central place for project setup and preconstruction tasks;
- An upgrade to the cost estimate in RedTeam Flex that supports hard bids and negotiated pricing for construction managers;
- Bid packages that help ensure complete scope coverage and a way to collaborate with trade partners and obtain quotes;
- Advanced bidder search using criteria such as vendor qualifications and credentials;
- Bid leveling to compare vendor quotes side by side. A feature called quote cards summarizes comparative cost analytics and cost comparisons; and
- Support for three key proposal types: fixed price, time and materials, and construction management for new projects and change order proposals.

—RedTeam Software, LLC, <https://redteam.com>

### The EDGE Estimator Concrete Software

The Estimating Edge launched its concrete estimating software, The EDGE® Estimator. Designed for commercial concrete contractors, this tool lets users create estimates with items, assemblies, and units of measurement associated with concrete projects. Key features of the concrete trade assembly include:

- Vendor quote—electronically request, compare, and import concrete pricing through a secure portal;
- Intuitive measurements—capture project dimensions from blueprints for precise concrete volume calculations;
- Smart Labor® technology—adjust concrete labor rates dynamically based on task complexity for accurate estimates; and
- Proposal writer—automatically pull bid data into custom proposals for faster bidding.



The EDGE concrete estimating software contains cloud-based capabilities and support from a team of industry experts.

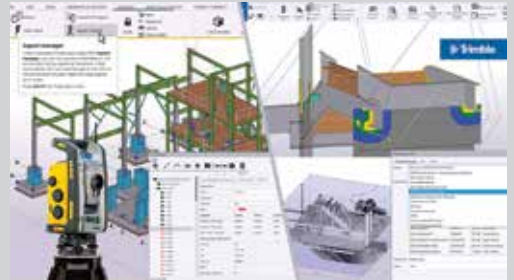
—The Estimating Edge LLC, <https://estimatingedge.com/construction/concrete>

## Tekla Structures 2025

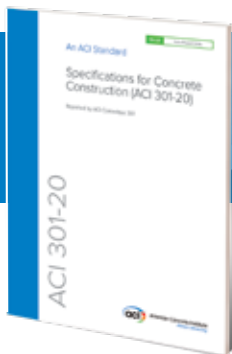
Tekla® Structures is a structural building information modeling (BIM) software. The 2025 version of Tekla Structures introduces artificial intelligence (AI)-enabled tools to enhance productivity and more efficiently create fabrication drawings. New features help to create, combine, manage, and share three-dimensional (3-D) models for real-time, model-based collaboration throughout construction project stages. It offers drawing automation capabilities with tools to improve user experience while minimizing rework. Some of its features include:

- AI cloud fabrication drawing service—users can use AI in the creation of fabrication drawings;
- AI-powered Trimble Assistant for Tekla—available both within the product as an extension and as a web app in Tekla User Assistance, it answers users' questions about Tekla products;
- Model-based collaboration with project stakeholders—the detailer can submit packages for estimating, purchasing, and fabrication from Tekla Structures with a single-click integration to Tekla PowerFab®;
- Live collaboration—enables working in the same model using Trimble Connect® or Tekla Structures;
- TrimBIM—an improved data exchange with Trimble Connect allows users to share what is needed for the task, enriching this information with model data;
- Field-to-office integration and visibility—integration with Trimble Reality Capture enables users to collaborate in point clouds and 3-D models without consuming local hardware resources; and
- Improvements for detailing efficiency—the 2025 version offers improvements in property panes and drawing properties dialogs, as well as extended reinforcing bar detailing functionality.

—Trimble Inc., <https://support.tekla.com/tekla-2025>



## ACI Resources for Concrete Specifications & Field Reference



### Specifications for Concrete Construction

Ensure quality and consistency in concrete construction with ACI 301-20, the go-to specification for architects and engineers.

### Field Reference Manual

Get the ultimate job site companion with ACI MNL-15(20) – the ACI Field Reference Manual featuring ACI 301-20 and other essential guides.



American Concrete Institute  
*Always advancing*

[concrete.org](https://concrete.org)