

Duro and Duro Inertial Receivers

Duro and Duro Inertial are receivers for centimeter-accurate, real-time kinematic (RTK) positioning of outdoor equipment using GPS L1/L2 and GLONASS G1/G2, BeiDou B1/B2, Galileo E1/E5b, and SBAS navigation signals. Both units incorporate Piksi Multi RTK GNSS receivers that provide RTK convergence in seconds. The inertial measurement unit (IMU) in the Duro Inertial allows more robust positioning. The receivers are supplied with military-grade, rugged enclosures with sealed connectors to protect the electronics against vibration, dust, and water immersion. Both Duro and Duro Inertial are easy to deploy—they are available in starter kits that contain everything needed for successful installation.

—Swift Navigation, www.swiftnav.com



Keystone Online Operations

GivenHansco, a developer of integrated producer-driven software products for the ready mixed concrete industry, has launched its latest online suite: Keystone Online Operations. An extension of its Keystone Online family of products and designed in-house by GivenHansco, Keystone Online Operations is comprised of “On-Demand” and “Key Performance Indicators” (KPI). This collection of online tools gives end-users the power to monitor, manage, and optimize efficiency throughout their organization, whether they are at their desk or in the field. On-Demand is a versatile online tablet and mobile device program that progressively allows users to view all orders for all plants, monitoring any day’s loads, tickets, batch weights, and truck locations. KPI is a graphical dashboard showing an up-to-the-minute view of productivity and efficiency using easy-to-understand charts. Dashboards can be customized to job roles so that plant managers can focus on production, sales managers can focus on sales, and owners can focus on profitability of essential performance modules.

—GivenHansco, www.givenhansco.com

GRX3 Integrated Receiver

Sokkia introduced the latest addition to its GNSS integrated receiver line: the GRX3. It is designed to provide a smaller, lighter, and fully integrated GNSS solution. The receiver features Sokkia Tilt technology, which includes a nine-axis inertial measurement unit (IMU) and ultra-compact eCompass designed to compensate for misleveled field measurements by as much as 15 degrees. The receiver has been tested to meet IP67 certification for protection against harsh environmental weather conditions.

—Sokkia, www.sokkia.com



Stinger Electric Flex Shaft Concrete Vibrator

The Minnich Stinger electric flex shaft concrete vibrator is a 14.5 lb (6.6 kg) double-insulated universal motor that can drive the full line of Minnich vibrator shafts and heads from 0.75 to 2.5 in. (19 to 63.5 mm). Available in a 15 amp and 115 volt version, it offers a more compatible speed range of 11,000 to 13,000 vibrations per minute (vpm) to meet today’s concrete placement challenges. The unit comes standard with a quick disconnect that adapts to the vibrator shafts and heads of many other manufacturers. A durable protective frame extends vibrator life with urethane end caps that absorb shock while supporting easy-to-grip handles. The Stinger provides quiet operation, meeting Occupational Safety and Health Administration (OSHA) A 29 CFR 1910.95 standards. Its double-insulated motor runs safely when grounding systems are compromised.

—Minnich Manufacturing, www.minnich-mfg.com



Terex Advance Charger Front Discharge Mixer Truck

Terex® Advance introduced a newly designed cab for its Charger series front discharge mixer truck. The new cab is designed as a mobile workspace to enhance the total driver experience. The interior has been refreshed with strategic placement of controls in logical groupings and within easy reach of the operator. Added space has been provided for storage, and additional charging ports have been added for electronic accessories. The new cab features a wider windshield, providing increased visibility for the driver, along with improved ergonomics, rear ventilation windows, superior windshield wiper sweep, and improved HVAC coverage.

—Terex, www.terex.com



Leica iCON iCR70 and iCR80 Connected to Autodesk BIM 360 Layout Mobile App

Leica Geosystems, part of Hexagon, announced the connection of their latest robotic total stations for construction, the Leica iCON iCR70 and iCR80, with the Autodesk BIM 360 layout mobile app, a construction management platform. The continued collaboration between Leica and Autodesk centers around the expanding role of building information modeling (BIM) in construction. This latest effort creates a seamless workflow, sending positions from the robotic total stations to the mobile app to compare with design data, increasing efficiency and productivity from field to office. With the integration to the iCR70 and iCR80 robotic total stations, BIM 360 Layout for iOS customers will be able to accomplish important layout and quality assurance and quality control tasks by using models stored and coordinated in BIM 360 directly within the BIM 360 environment.

—Leica Geosystems, www.leica-geosystems.com; Autodesk, www.autodesk.com



Bricking Solutions EZ Lift Suspended Platforms

Bricking Solutions announced its EZ Lift Suspended Platforms for improved safety and efficiency during servicing and relining of vertical vessels. These platforms include fast assembly and boosted productivity for applications in cyclones, lime kilns, precalciners, and ISASMELT™ furnaces.

Crews use electric, manual, or hydraulic hoists to move the platform up and down inside vertical vessels, performing maintenance and relining tasks. The platform can be moved as fast as 11 m (35 ft) per minute with Spider SC series electric hoists. Bricking Solutions manufactures the modular platform structure using high-strength 6061-T6 aluminum, featuring the same strength as steel at a third of the weight. The structure is flexible, with the standard platform reconfigurable to four different sizes to fit vessels from 3.5 to 6.7 m (11.5 to 22 ft) in diameter. Crews can adjust the size of the platform by up to 1 m (3.3 ft) while suspended by changing the outer panels, allowing for easy transition between different widths of a vessel. Crews use mechanical outriggers to maneuver and stabilize the platform, which features a load capacity of 6000 lb (2722 kg).

—Bricking Solutions, Inc., www.bricksolutions.com

Products & Practice

GeoStrong Repair Mortar

GeoStrong™ Repair Mortar is a one-component, nonshrink, fast-setting geopolymer mortar designed for repairing horizontal, vertical, and overhead concrete surfaces where high strength is desired. It can be used for fast repairs to concrete and mortar surfaces in civil infrastructure and industrial applications, including bridges, buildings, parking structures, and chemical plants. GeoStrong is corrosion-resistant and allows for fast application, up to 3 in. (76 mm) in one layer, with fast finishing and reduced time between lifts. It is available in 50 lb (23 kg) bags; coverage for one bag is 10.3 ft² (0.96 m²) at 0.5 in. (12 mm) depth.

—Milliken Infrastructure Solutions, www.infrastructure.milliken.com

Web Notes

CRSI Rebar Reference Mobile Device App

The Concrete Reinforcing Steel Institute (CRSI) announced the release of the Rebar Reference mobile app. It is designed for use as a ready reference guide for common reinforcing steel data and information. ASTM International standard reinforcing bar specifications are provided, including sizes, diameters, areas, and weights, along with typical hook details. Minimum yield and minimum tensile requirements per ASTM are also included. Industry-standard bar markings for in.-lb reinforcing bars are illustrated for Grades 40, 50, 60, 75, 80, 100 (A615), 100 (A1035), and 120.

—Concrete Reinforcing Steel Institute, www.crsi.org

Products & Service Literature & Videos

Guide for Concrete Pavement Distress Assessments and Solutions

The National Concrete Pavement Technology (CP Tech) Center's 500-page *Guide for Concrete Pavement Distress Assessments and Solutions: Identification, Causes, Prevention, and Repair* is a comprehensive guide to identifying, understanding, and mitigating concrete pavement distress. Developed as part of a Federal Highway Administration (FHWA) cooperative agreement to support more sustainable concrete pavement technical solutions, this manual is valuable for transportation agency personnel and consulting engineers who are responsible for managing concrete pavement assets. Among many other topics, chapters cover subjects such as surface defects, surface delamination, transverse and diagonal cracking, spalling, faulting, joint curling and warping, continuously reinforced concrete pavement, and field evaluation and laboratory testing procedures. Other issues that receive attention include monitoring pavement performance, developing project concepts, developing and administering pavement repair projects, and overseeing system maintenance. The guide is available for free as a PDF or EPUB through the CP Tech Center website.

—CP Tech Center, www.cptechcenter.org



Book Notes

Practical Foundation Design with STAAD Foundation Advanced

Bentley Institute Press, a publisher of textbooks and professional reference works for the advancement of the engineering, architectural, construction, operations, geospatial, and educational communities, has announced the availability of a new publication titled *Practical Foundation Design with STAAD Foundation Advanced*, now available both in print and as an e-book. The book follows a tutorial-based approach to help readers understand the fundamentals of foundation design steps and processes. To help readers learn STAAD Foundation Advanced quickly, the book provides detailed descriptions of all inputs and explanations of outputs.

Price: \$41.00 (print); ISBN 9781934493526 (print)

—Bentley Institute Press, www.bentley.com/books