Graco M680 Mortar Pump
Graco Inc., a manufacturer of fluid-handling equipment, introduced the Graco M680™ Mortar Pump. The pump is designed to reduce labor hours for projects by speeding up surface prep work, allowing contractors to spray heavy materials onto a surface rather than trowel them on by hand. The pump is engineered to work with abrasive materials such as cementitious coatings, epoxy-based mortars, non-skid coatings, and polymers with glass flake, silica, or sand fillers. It is ideal for projects in the water and wastewater industry, mining, oil and gas, marine and offshore, building and infrastructure, and general construction.
—Graco Inc., www.graco.com

Penetron Helps Launch the Bermuda Cruise Season
The Heritage Wharf cruise ship pier at Bermuda’s Royal Naval Dockyard had one dock area that urgently needed repair to damage caused by erosion. Also, the pier needed to be expanded to better accommodate large cruise ships. Renovation of the Heritage Wharf included noise-mitigation equipment, new pilings, and concrete work. The pier can now accommodate ships up to 1100 ft (335 m) in length. Penetron Admix® (integral crystalline dampproofing admixture) was used in collaboration with a corrosion inhibitor in the reinforced concrete marine structures of the wharf and to protect the non-galvanized steel reinforcement.
—Penetron, www.penetron.com

Deltabeam
Deltabeam is a slim-floor system for multi-story buildings of any type from low to high-rise. It is the first fire-rated exposed steel beam. The Peikko Group tested the beam with Underwriters Laboratories. The Deltabeam achieved the 1-, 2-, 3-, and 4-hour fire ratings without any fire protection.
—Peikko Group, www.peikkousa.com

Contractors Use Redline Software to Modify Electronic Construction
Maxwell Systems Inc., launched RedLine for ProContractorMX Mobile Connect. With this software, construction professionals mark up, annotate, stamp, approve, reject, sign, and insert photos in electronic documents. Mobile Connect allows contractors to manage documents and data while at jobsites or in the office.

Spectec
Resiplast US, Inc., introduced Spectec polyurethane injection grouts. The Spectec grouts have been manufactured and sold for 25 years in Europe, Middle East, and Canada. The Spectec injection resins are used to seal water infiltration by cutting off water flow and stabilizing soils or other strata. Resiplast will service their U.S. sales, organization, distributors, and customers through their office and warehouse in Houston, TX.
Rapid Refloor Pit Grout

Metzger/McGuire, a manufacturer of floor joint filler and repair products for stained and polished concrete floors, introduced Rapid Refloor Pit Grout. It was developed to fill and repair concrete floor surface imperfections such as air holes, pop-outs, surface pitting, scratches, and gouges. The grout can be blended with a dry aggregate to produce a repair mortar for various concrete deficiencies. It is available in more than 48 ColorFast colors and is designed for use in commercial, retail, or industrial polished concrete floors. The grout is a two-component, 100% solids structural polyurethane and polyurea hybrid. When cured, it is a rigid structural polymer with a shore D Hardness of 70-75 and a compressive strength of 3550 psi (24 MPa).

—Metzger/McGuire, www.metzgermcguire.com

Bay Bridge Concrete Construction

Central Concrete Supply Co, Inc., a business unit of U.S. Concrete, Inc., started work on the San Francisco-Oakland Bay Bridge, CA, in 2001. In the last 12 years, Central Concrete has supplied over 250,000 yd³ (228,600 m³) of concrete for this job. The Bay Bridge project entailed a number of requirements, including concrete durability, rapid setting, and pumpability. To meet these requirements, more than 40 specialty mixtures were engineered. One critical operation took place over Labor Day weekend in 2007. The construction team removed a 348 ft (106 m) long by 75 ft (23 m) wide section of the existing bridge, rolled in a pre-constructed replacement span, and placed replacement concrete. The new concrete was ready for traffic within 4 hours of placement. For another critical stage in the project, Central Concrete designed a lightweight concrete mixture that could be pumped across a distance of 2000 ft (610 m), achieve high strength properties, and could be easily supported by the steel superstructure for the Bay Bridge S-curve—a temporary structure.

—Central Concrete Supply Co, Inc., http://centralconcrete.com

Kryton Krystol Used in Construction on Toronto Tunnel

The GO Transit Authority is meeting the transportation needs of Toronto’s growing population by creating a grade separation at Strachan Avenue. The rail corridor will be lowered as much as 26 ft (8 m) below Strachan Avenue. In order to accommodate the lowered rail line, a 1 mile (1.5 km) long sewage tunnel was also moved down. In the first phase of the project, the team used a surface-applied system to dampproof the sewage tunnel. For the next phase of the project, the team added Kryton’s Krystol Internal Membrane (KIM) concrete dampproofing admixture to the concrete mixture, thus eliminating the step of applying a surface applied system. Approximately 4000 yd³ (3000 m³) of KIM treated concrete was used in the construction of the sewage tunnel. Kryton’s Krystol Waterstop System for joints was also used in the tunnel and the tunnel ventilation shafts at Strachan Avenue.

—Kryton International Inc., www.kryton.com
Liebherr Dealer Network

OEConnection LLC, the parts e-commerce technology for original equipment manufacturers (OEM) distribution networks, announced that Liebherr Construction Equipment Co., subsidiary of the Liebherr Group, has selected OEConnection’s parts sourcing solution for its network of dealerships throughout the United States. The web-based solution will provide Liebherr’s dealers and distribution centers with 24/7 access to parts inventories, which enables dealers to quickly locate replacement parts from anywhere within the OEM parts supply network. Joining many of the world’s largest OEM dealer networks, Liebherr represents the first heavy equipment manufacturer to use OEConnection parts procurement and e-commerce solutions.

—OEConnection LLC, www.oecollection.com
—Liebherr Construction Equipment Co., www.liebherr.us

Post-Tensioned Buildings

by Bijan O. Aalami

This book was written for engineers with a basic knowledge of conventionally reinforced concrete design. The presented material covers the full range of post-tensioning principles, including those necessary for efficient design, with a focus on the science of engineering rather than the “art” of post-tensioning design. Emphasis is on the ultimate objectives of serviceability and safety in design and how to achieve it, rather than strict adherence to local or traditional practice. The material is organized to benefit designers, plan checkers, and reviewers. The book is available in two versions: a U.S. edition, and an International edition.


BASF RheoTEC Video

The Admixture Systems business of BASF’s Construction Chemicals division released an educational video describing the benefits experienced by ready mixed concrete producers who use RheoTEC™ Z-60 workability-retaining admixture. Workability has been a production challenge for the concrete construction industry. With the use of RheoTEC Z-60, concrete producers have been able to maintain consistent concrete by eliminating workability loss and the costs associated with it. The video contains real-world commentary on the benefits of RheoTEC Z-60 and how it provides ready mixed concrete producers the ability to adjust workability retention as changes occur to project requirements, mixture proportions, and material supplies. This flexibility allows concrete producers to make and deliver more consistent concrete, resulting in operational efficiencies, improved profitability, and increased contractor satisfaction. The full video includes testimonials and additional information about workability retention. The RheoTEC Z-60 Video from BASF Construction Chemicals can be found at www.basf-admixtures.com/rheotec.

—BASF Corporation, www.basf.com

Information on the items reported in “Products & Practice” is furnished by the product manufacturers, suppliers, or developers who are responsible for the accuracy of the information. Also, the descriptions of these items do not represent endorsement by this magazine, by the American Concrete Institute, or any of its staff. They are published here simply as a service to our readers.