

Blastcrete RS180 Mixer-Pump

The RS180 Mixer-Pump from Blastcrete Equipment LLC offers variable speeds up to 18 yd³ (14 m³) per hour and mixes a full load in less than 2 minutes. It has long-distance and high-volume pumping capabilities and can be used for gypsum flooring underlayment, grouting, cellular concrete, and some wet-mix shotcrete applications. To eliminate material surges and allow for higher pumping volumes, it incorporates an adjustable 2L8 rotor-stator pump. It also features a 12 ft³ (0.34 m³) hydraulic spiral mixer, driven with a planetary gearbox, offering variable speeds up to 60 RPM. A 15 ft³ (0.4 m³) receiving hopper, easily charged with 1000 lb (450 kg) bulk bags or 11.6 ft³ (410 m³) skid steer bucket, increases jobsite efficiency. All cleaning and wear parts are easily accessible, and the mixer offers hassle-free removal to maximize maintenance efficiency, with complete detachment from the unit possible after removing only four bolts. The RS180 features a dual-axle high-speed towing trailer and durable tubular steel frame, allowing for long-distance travel and optimal maneuverability. It is powered by a 55 hp (41 kW) Yanmar water-cooled diesel engine.

—Blastcrete Equipment LLC, www.blastcrete.com



COMANSA 21LC1400 Flat-Top Tower Crane

Available worldwide this month, the 21LC1400 flat-top tower crane from COMANSA comes in two versions, with a maximum load capacity of either 50 or 66 tonnes (55 or 73 tons). The main expected application of the 21LC1400 is in prefabricated prefinished volumetric (modular) construction and infrastructure projects—projects in which the maximum load capacity is needed in almost every lift. The 21LC1400 features a modular design of the counterjib to significantly reduce the counterradius in constrained jobsites. A new single and compact trolley was also designed for the 21LC1400.

—COMANSA, www.comansa.com



Cortec MCI POWR 100

The recently reformulated MCI® POWR 100 is a three-in-one concrete surface treatment for water repellency, oil/stain resistance, and corrosion protection. The silane component of MCI POWR 100 provides water repellency by chemically reacting with the cementitious substrate under proper application, decreasing the ingress of aggressive materials; the oleophobic additive modifies the concrete surface to increase resistance to oil and food stains; and the migrating corrosion inhibitor (MCI) component penetrates deep into the substrate, forming a protective, molecular barrier on embedded reinforcement to reduce the rate of corrosion at the reinforcing bar surface. This multifunctionality is beneficial in such applications as commercial buildings, parking garages, bridges, and industrial floors exposed to high levels of oils, greases, or water.

—Cortec Corporation, www.cortecmci.com

Products & Practice



Avanti AV-500 Epoxy Line

Avanti International's AV-500 epoxy line is a variety of injection solutions used to stabilize soils and rock, restore structural integrity, stop leaks, and control groundwater. The AV-502 Injectible Bonding Epoxy Series was developed for structural concrete repair by crack injection, gravity feed, or patching. It can be used as a liquid binder for sand, aggregate, or any other mineral filler to patch or resurface damaged concrete slabs. The AV-522 Crack Sealing Paste is a two-component, nonsag structural epoxy for use in anchoring/bonding applications. Due to its high bond strength to concrete, it can be used to anchor threaded rod or reinforcing bar dowels. The AV-580 Joint Filler Epoxy and the AV-590 Joint Filler Polyurea were designed to fill sawcut control joints and contraction joints in concrete.

—Avanti International, www.avantigrout.com

Petzl VERTEX VENT

The VERTEX® VENT is a modular helmet that can be integrated with such Petzl products as a headlamp, hearing protection, eye shield, nametag holder, and a variety of other accessories. It features six-point textile suspension and Petzl's CENTERFIT and FLIP&FIT systems, making for a secure fit. The strength of the chinstrap can be adjusted to allow for work at height or on the ground. Ventilation holes with sliding shutters allow for airflow. The VERTEX VENT has a head circumference of 530 to 630 mm (21 to 25 in.) and is available in seven colors. Two high-visibility versions—yellow and orange—are also available.

—Petzl, www.petzl.com

Meadow Burke Rapid-Lok Ultimate

Meadow Burke's Rapid-Lok® Ultimate provides a solution to permanently hold the stems of a double tee. The system includes an embed plate—a flat steel plate with keyholes and headed studs welded to the back; void formers—plastic elements with covers that fit into the keyholes and are secured with locking stems; and a bearing angle—a steel element with interlocking ears that fit into keyholes in the embed plate. The embed plate is cast into the concrete structure at the precast plant, with the faceplate flush to the wall face. Once the precast wall is on-site, the void former covers attached to the face of the embed plate are removed to reveal keyholes. The bearing angle ears are then engaged into the keyholes of the embed plate, securing them in place. The system has been load tested to verify that the calculated resistance represents the 5% fractile (a strength that will be exceeded by 95% of the population with a 90% confidence). The system also has a fire rating of 3 hours when tested per ASTM E119 and CAN/ULC-S101.

—Meadow Burke, www.rapidlokultimate.com

Makita XRH12 Rotary Hammer

The XRH12 from Makita is a cordless, brushless rotary hammer with a pistol-grip design. Its maximum capacity for concrete drilling is 1 1/16 in. (17 mm). The XRH12 may be operated in three modes: rotation only, hammering with rotation, or hammering only. It has a variable-speed trigger, and its constant speed control automatically applies additional power to the motor to maintain speed under load. It features an 18V LXT® lithium-ion battery with a 45-minute charge time. Including the battery and dust extractor, it weighs only 7.5 lb (3.4 kg). Its Anti-Vibration Technology (AVT®) increases user comfort. It is available as the tool alone or as a kit.

—Makita, www.makitatools.com

DEWALT AC200+

DEWALT's AC200+™ is a two-component, high-strength adhesive anchoring system. The system includes injection adhesive in plastic cartridges, mixing nozzles, dispensing tools, and hole-cleaning equipment. AC200+ is designed for bonding threaded rod and reinforcing bar hardware into drilled holes in concrete base materials and for post-installed reinforcing bar connections. The mixing nozzles proportion the adhesive components and provide a simple delivery method into drilled holes, while the cartridge design allows for multiple uses using the extra mixing nozzles. AC200+ can be installed at a wide range of base material temperatures; it is qualified for structural applications in concrete and masonry as low as 14°F (-10°C).

—DEWALT, <http://anchors.dewalt.com>



Book Notes

Concrete: Case Studies in Conservation Practice edited by Catherine Croft and Susan Macdonald with Gail Ostergren

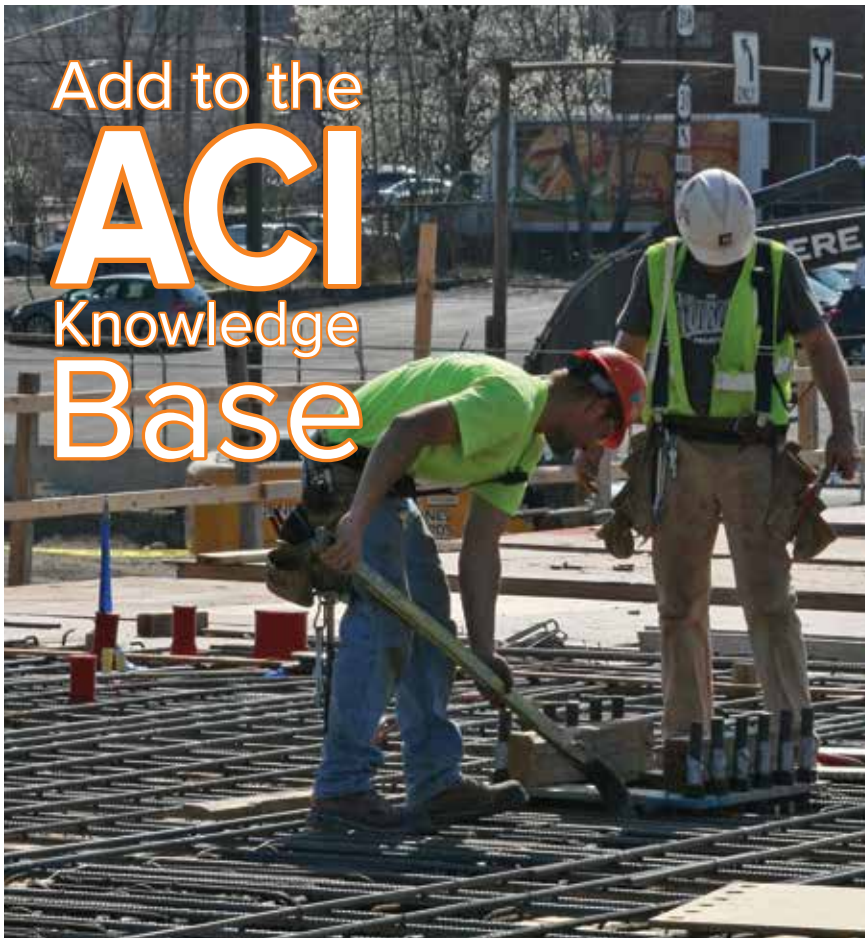
This volume contains 14 detailed case studies on the conservation of twentieth-century concrete structures. Organized chronologically based on date of original construction, the projects described range in use, size, architectural style, and location, from the Dudley Zoological Gardens in Dudley, England, to the New York Hall of Science in New York City, NY, to Brion Cemetery in Treviso, Italy. Each chapter is organized in the same fashion: an introduction is followed by general project information, investigations (background research, analysis, and diagnostic work), the conservation process, and conclusions. Both full-color and black-and-white photos bring these concrete structures to life, showing the structures in their prime, the extent of damage prior to restoration, the conservation process, and the finished repairs. The conservation descriptions are technical in nature, but a glossary makes this volume accessible to a wider audience, and an index makes for easy navigation of topics of interest.

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