

# Products & Practice

## SOFTWARE FACILITATES COLLABORATION

ArchiCAD® 13 is the latest version of Graphisoft's architectural design software. It includes the state-of-the-art, patent-pending BIM Server™, introducing a new paradigm in design file sharing by allowing access to building information modeling (BIM) files anywhere and anytime, and relieves workflow management bottlenecks. New technology dramatically reduces network traffic, meaning team members can collaborate on BIM models in real time. The same technology also makes BIM projects accessible through standard Internet connections from virtually anywhere in the world. The BIM Server's robust system architecture ensures the project's integrity by blocking data errors from malfunctioning components, preserving the project's integrity on the network. The new Teamwork feature offers on-demand element access and server-level conflict management, combining the flexibility of two-dimensional workflows with the coordination power of the model-based world, allowing a company to more efficiently use its workforce with a dynamic and centrally controllable design workflow.

—Graphisoft  
[www.graphisoft.com](http://www.graphisoft.com)

## GRINDERS HAVE LONG LIFE

The GA4030/K and GA4530 angle grinders are powered by a Makita-built 6 amp motor that delivers 11,000 rpm for the most demanding applications. The labyrinth construction seals and protects the motor and bearings from dust and debris. The machined bevel gears provide longer service life, and the all ball bearing design and metal gear housing are engineered for added durability. Both grinders weigh only 3.1 lb (1.4 kg) and feature a 2.25 in. (56 mm) circumference barrel grip for added comfort. The gear housing can be positioned every 90 degrees for a range of cutting applications, and the side handle can easily be installed on either side or the top of the tool for operator convenience.

—Makita  
[www.makitatools.com](http://www.makitatools.com)



## SENSORS PROVIDE ACCURATE PAVEMENT PROFILING

The Selcom RoLine™ 1130 Sensor is used to measure road profiles, road roughness, and pavement smoothness. It also serves as a forum for the exchange of information among end users, data collections, vendors, and construction and design engineers on the conditions of a particular road or highway. It features laser line sensing for accurate profiling of all pavement geometries on high-speed profilers at any vehicle speed. The laser line measuring principle of RoLine™ sensors was developed to improve the accuracy of pavement profiling for coarse textured surfaces, particularly longitudinally-tined and diamond-ground surfaces. The sensor provides increased frame rates and higher data density to meet the needs of high-speed profilers. To provide flexibility for the profiler manufacturer, the RoLine 1130 operates with two data output modes, either full profile data or the optional output using the internal bridging algorithm that reduces the full profile to a single point output representing the actual surface location.

—LMI Technologies Inc.  
[www.lmitechnologies.com](http://www.lmitechnologies.com)

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## CLEANER IMPROVES APPEARANCE OF CONCRETE

MCI®-2061 is a powerful cleaner that safely and effectively removes stains from concrete, instantly improving its appearance. It contains biodegradable surfactants that help to quickly remove oil stains, and it leaves behind spore-forming bacteria on the cleaned surfaces. The bacteria degrade residual hydrocarbon constituents that aren't removed during the initial cleaning process, and spores that are rinsed away germinate and work to purify the rinse water. It has a neutral pH and contains less than 1% VOCs, making it a safe alternative to caustic and acidic cleaners. The noncorrosive, nonirritating, and nonflammable formula is both environmentally and user friendly.

—Cortec Corp.

[www.cortecmci.com](http://www.cortecmci.com)

## WATERPROOFING SYSTEM IS DURABLE

Turbo-Seal P Waterproofing System is a flexible, self-healing gel that bonds to any surface to create an impervious waterproofing membrane. Consisting of a highly elastomeric polymer rubber (comprising more than 25% post-consumer recycled content) infused with special adhesives, it absorbs movement, minimizes damage and separation, and is resistant to wide temperature fluctuations. In fact, its unique set of properties means that it never fully cures. It can be used in both above-grade and below-grade applications for horizontal or vertical positive side wrap-and-finish waterproofing. It adheres to wet substrates as well as heterogeneous surfaces and can be applied to green concrete. Turbo-Seal is an ideal and reliable choice for permanent waterproofing in new construction and repair applications, including plaza decks, elevator pits, cast-in-place wall foundations, block wall foundations, split slab construction, diaphragm walls (blind side), green roofs, and more.



—OCM, Inc.

[www.ocm-inc.com](http://www.ocm-inc.com)

## PAVER IS USER FRIENDLY

The 4836B Bridge Deck Finisher (BDF) incorporates the durability, functionality, and quality that contractors look for in their equipment. The mainframe and dual-roller finishing carriage are powered by 25 hp engines and feature all hydraulic controls, making the 4836B BDF more user friendly than previous models. It has a 36 in. (900 mm) deep mainframe, 5 in. (125 mm) hydraulic carriage lift, manually adjustable legs, and a single drag pan with burlap drag. The two 8 in. (200 mm) diameter finishing rollers are 48 in. (1200 mm) long.

—Allen Pavers Corp.

[www.allenpavers.com](http://www.allenpavers.com)



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## CRANE TACKLES DIFFICULT TASK

Before the official opening of the Dubai Mall, one of the world's largest shopping malls, a number of tower cranes employed throughout construction had to be dismantled. To dismantle a Liebherr 280 EC-H tower crane, the contractor had to temporarily install a Liebherr 125 HC-L 6/12 Litronic luffing jib alongside it to remove the components of the tower crane. However, the location of the luffing jib crane was such that, without the Liebherr 200 DR 5/10 Litronic derrick crane—purpose-designed to dismantle tower cranes, particularly on high buildings—it would have been impossible to remove, with no access even to use a conventional mobile crane technique. Although designed primarily for high buildings, the derrick crane proved equally adept on the low-rise Dubai Mall removing the components of the luffing jib crane. The Liebherr 200 DR 5/10 Litronic is designed to lift a maximum 10,000 kg (22,000 lb), but the crane used at the Dubai Mall application was certified to lift a maximum 6 tonne (6.6 ton) load.

To remove the luffing jib crane from the roof top, the dismantled components were swung onto a 25 m (82 ft) length of rollers, allowing a tower crane to lift them across a 40 m (131 ft) expanse of roof top. A second tower crane was then used to carry the components a further 30 m (98 ft), to be lifted in turn by a third tower crane and lowered to the ground for transportation off site. The 6 tonne (6.6 ton) jib assembly was removed first, followed by the A-frame counter jib less the hoist assembly to comply with the 6 tonne (6.6 ton) capacity restriction. With the cab weighing 10 tonnes (11 tons), this too was broken into two elements.

The recently introduced 200 DR 5/10 Litronic derrick crane, depending on the application, has been designed with load moments of 100 or 200 m-tonnes. Its supports are articulated and adapted to the structural circumstances of the substructure of the building to achieve optimum distribution of the support forces, and, depending on the application, the crane can be used with or without supports. The dimensions and weights of all the individual parts of the derrick crane are designed to allow them to be dismantled solely with the aid of a small hoist and, on the Dubai Mall project, lowered to the ground in a similar sequence as the luffing jib unit.

—Liebherr-Werk Biberach GmbH  
[www.liebherr.com](http://www.liebherr.com)



### COLLECTION OF ASTM CONSTRUCTION STANDARDS NOW AVAILABLE

The 46th edition of *ASTM Standards in Building Codes* is now available from ASTM International in print, DVD, and online. Its more than 1300 ASTM construction standards give designers and engineers the tools they need to design and construct buildings that satisfy the international code requirements established by the International Code Council® (ICC). It provides easy access to the latest versions of standards referenced by:

- The International Codes, ICC;
- National Building Code of Canada, National Research Council Canada;
- Uniform Plumbing Code and Uniform Mechanical Code, International Association of Plumbing and Mechanical Officials;
- MASTERSPEC®;
- BSD SpecLink®;
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### VIDEO OFFERS PROJECT MANAGEMENT TRAINING

The National Center for Construction Education and Research (NCCER) has released “Minor Decisions: Major Impact; How to Deal with Real Issues in Project Management,” a scenario-based training DVD. It creates discussion about the roles and actions of a construction project manager while also bringing real-world project management issues to life in the classroom. The central topics, which are covered in six video segments, include how to manage best under pressure, resolving team conflicts, using best practices, and mitigating negative impacts on schedules and costs. Other general themes and issues include management and leadership styles, teamwork and attitudes, disciplinary action, problem identification, fact finding, root cause analysis, resource control, and proper housekeeping procedures. The program comes with an instructor’s guide featuring lesson plan suggestions and tips on using the video, as well as discussion questions and class exercises.

For more information, visit NCCER’s Web site at [www.nccer.org](http://www.nccer.org).

## Web Notes

### WEB SITE LAUNCHED FOR MAGAZINE

The Concrete Sawing and Drilling Association (CSDA) has launched a Web site for its official magazine, *Concrete Openings*. Now all of the job stories, regular columns, and much more can be accessed any time at

[www.concreteopenings.com](http://www.concreteopenings.com). Job stories submitted by contractor members of CSDA are the focal point of each issue. The home page is organized with the same headlines as the magazine to make navigation easy, and the site incorporates the latest page-turning technology to allow readers to page through the entire magazine or print out sections to be read later. Comments about job stories and regular features can be shared in the discussion forum. Visitors can start discussion threads on specific topics covered in the magazine or start discussion threads on new topics. Back issues will be archived to give readers quick and easy access, and individual stories are categorized by cutting/drilling technique to help readers find exactly what they’re looking for.

