Formwork News

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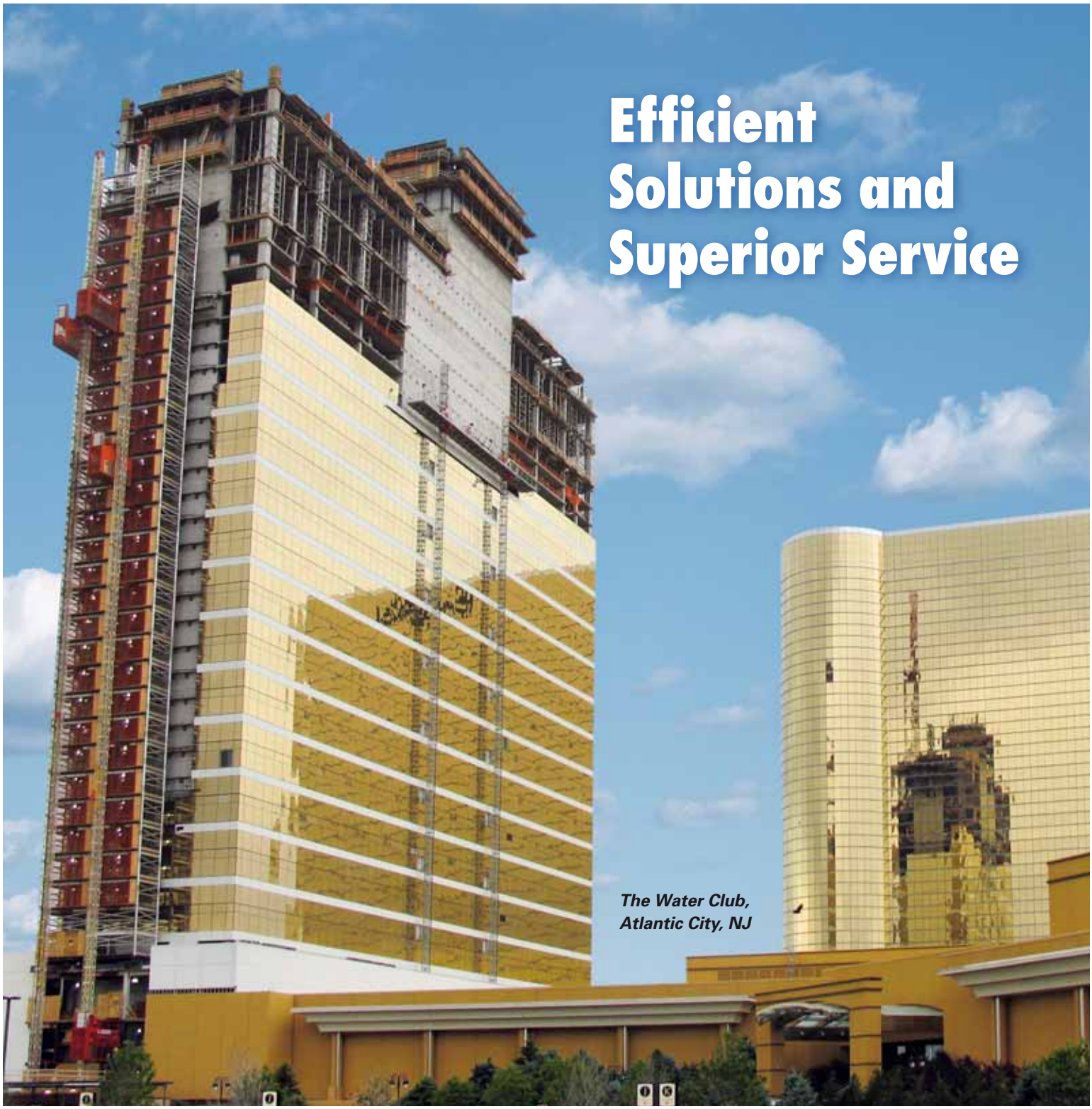
The Formwork Experts



Efficient Solutions and Superior Service

The Water Club,
Atlantic City, NJ

Editorial

Dear Formwork News readers,

Bob Kent

Doka USA is dedicated to provide quality products, economical and safe solutions that are backed by an experienced professional staff of engineers and knowledgeable field service personnel. Our customer's success is our success and we are committed to support their needs. Our team of project support personnel, engineering and field services, participate in training programs that are extensive in nature and very comprehensive. We are committed to train our employees better and faster than the competition by improving and enhancing their skills and knowledge of Doka products and systems. We encourage every person in our engineering team to visit and participate in site meetings, field service and customer support. The practical knowledge and experience they gain is immeasurable and valuable. Our Customer Service Representatives and Account Managers are highly dedicated to serving our customers needs on every project. The articles featured in this edition of the Formwork News represent only a few of the accomplishments of the efforts our dedicated support staff. On behalf of the Senior Management, I would like to take this opportunity to thank the featured companies for sharing their success stories and partnership with Doka USA.

Sincerely,
Bob Kent, Vice President – Engineering
Doka USA, Ltd.

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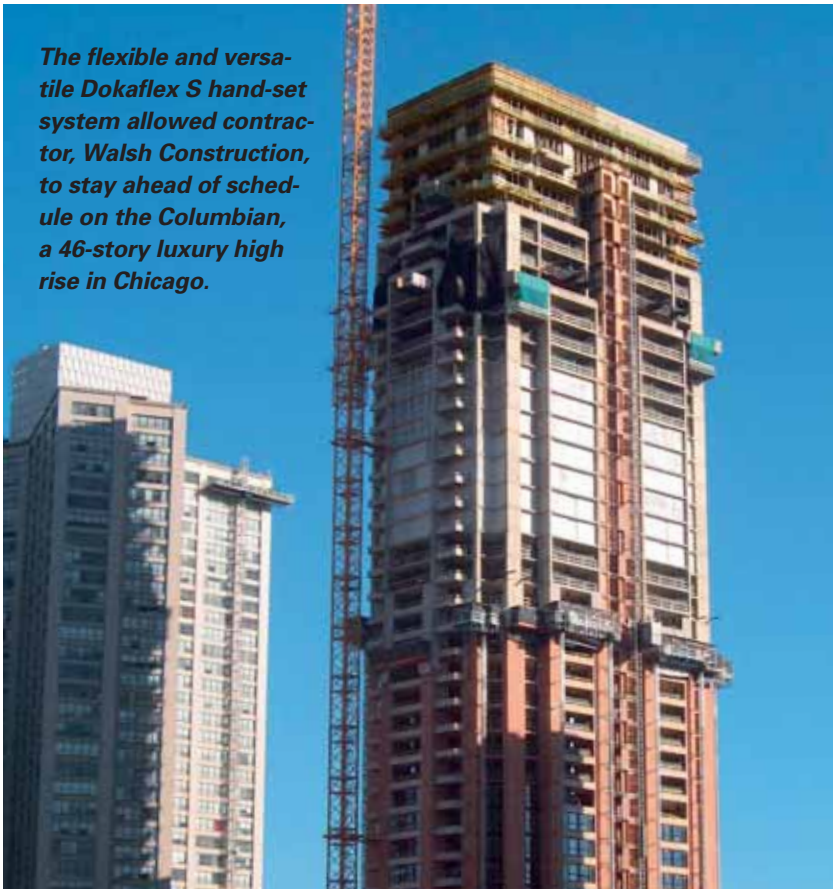
The Columbian Project, Chicago

Efficient two-day cycle for high-rise construction

A leading Chicago development completes construction ahead of schedule using a 2-day cycle with Doka formwork.

Construction was done with half of the deck being poured each day using Doka's flexible hand set system, Dokaflex S. Typical floors were 10,500 sq. ft, with over 32,500 sq. ft. of Dokaflex S in use, on over 3 floors simultaneously. For re-shoring, Eurex 30 props were dependable because of their high load capacity and easy handling. The numbered holes make height adjustments fast, and the special design allowed for a quick load release.

"Our previous experience with Doka's equipment and their ability to deliver the material within the tight time constraints dictated by the limited crane time on the project, gave us confidence in Doka" said Walsh Construction, Project Manager, Gary Enderle. The first lift of the core was formed using 7,300 sq. ft. of Doka's Framax Xlife wall formwork. The main advantage of the system was the minimum use of the crane because it's lightweight, and allowed hand setting installation and positioning. The remaining floors were formed using 5,300 sq. ft. of Top 50 supported by SKE 100 lifting brackets.



The flexible and versatile Dokaflex S hand-set system allowed contractor, Walsh Construction, to stay ahead of schedule on the Columbian, a 46-story luxury high rise in Chicago.

To accommodate multiple pours at different heights, 2,630 sq. ft. of segmented Doka Frami Formwork was used to form the one-sided final concrete lining.

CSO Tunnel, Portland, OR

Mining Shaft on Schedule with Doka

The East Side CSO Tunnel: Opera Shaft is the first of seven similarly constructed shafts to be completed as part of the Combined Sewer Overflow (CSO) project in Portland, OR.

Opera Shaft, the main mining shaft for the East Side CSO tunnels, is 115' deep, 67' in diameter; with a 3' thick concrete lining. It will serve as the entry point for the project's tunnel boring machine (TBM), which began work in May 2007.

Doka's Far West Branch provided Kiewit-Bilfinger Berger with Frami formwork, D-22 climbers, and engineering support for the shaft construction. A total of 2,630 sq ft of Frami with hinged corners was used in segmented fashion to form the one-sided final concrete lining of the Opera Shaft. Support of the one faced formwork was accomplished using Doka's D-22 cantilever rollback frames which also provided a safe working platform. For contractor Kiewit-Bilfinger Berger, it was imperative that the formwork would be able to accommodate differing pouring heights, as well be quickly assembled, and easily lifted for multiple pours. The contractor found that Frami and D-22 provided them with the necessary tools to complete the job on time and on budget. Mike Hanley, Kiewit's General Superintendent stated, "The forming system worked very well for us. The crews could raise and set them in 5 shifts." Overall, this meant that with the Frami formwork and D-22 climbers, the project took only 90 days to form the final lining of the huge shaft.

Because the panels are lightweight, they could be easily hand assembled into gangs on the ground there by reducing crane time.

Kiewit-Bilfinger Berger found that the Frami's lightweight characteristics permitted for quick assembly of the Frami panels on the ground, which ultimately reduced crane time. The D-22's are capable of high pour heights reducing the total number of pours required to only four. Adjusting and accommodating the differing pour heights was made simple because Frami's modularity allowed for upper panels to be easily removed when necessary. ■

The Water Club in Atlantic City, NJ

Doka Provides the Right System and Tremendous Savings

Work is nearing completion on the construction of The Water Club, a forty-story high-rise signature hotel by Borgata, located in Atlantic City, New Jersey.

The first four floors of The Water Club were formed using 25,000 sq ft of Doka's Framax Xlife gang formwork. The modular and symmetrical panels ensure the best possible utilization of formwork and provided quick assembly using only a hammer and two lightweight clamps.

Rich Bischoff, Vice President, Weatherby Construction

As the contractor, Weatherby Construction, started pouring the first four floors, Doka was preassembling 18,000 sq ft of Top 50 gang formwork with self-climbing equipment SKE 50 at their Little Ferry facility and delivering it on site. It was essential that the contractor convert from crane set Framax to the self-climbing SKE in less than 5 working days, and with the help and guidance of Doka representatives, this was achieved.

The contractor was very pleased with the amount of guidance and follow-up support Doka was able to provide. "The engineering department worked very well with us, walking us through the right system to select. We were originally looking at using a gantry system to form the buildings concrete core, but Doka suggested their SKE 50 because of its ability to be rolled back from the finished concrete [allowing two-story preassembled rebar cages to be installed]. They were very helpful in suggesting the selection of the right system for the job and we can now say that it was the right decision," explained Rich Bischoff, Vice President of Weatherby Construction.

"Our systems run like a well-oiled machine. Doka has the availability, expertise, customization, and right systems for the job. The precise details of our custom drawing and the experience levels of our field service technician guarantee a job well done" said Account Manager, John Podkrajac. ■

Benefits of Doka's formwork system allowed installation of preassembled rebar cages in two story heights instead of bar by bar set-up enabling quicker cycling times.

Over 18,000 sq. ft. of Dokamatic Tables were used to complete the 1st level in two pours.

Pratt Pavilion – Basketball Practice Facility, University of Tennessee, Knoxville

Dokamatic Tables Speed Up Construction Sequence

The Pratt Pavilion is being constructed at the University of Tennessee to function as a two level basketball practice facility with a ground level parking garage.

Contractors Johnson & Galyon trusted Doka to supply the formwork for the facility since the innovative design of the pre-assembled table system would significantly decrease forming time and allow them to finish construction of the 52,000 sq. ft. facility before the start of the next basketball season.

Doka's Framax system was used for the ground floor foundation walls and columns, as well as the two stair towers. "Doka's forming systems are much easier and quicker than traditional wood forming, and they were able to react to our needs quickly and get the right equipment to Knoxville the next day when needed" stated Doug Irwin, Project Superintendent with Johnson & Galyon.

To support the elevated slabs Doka provided a solution to use the Dokamatic tables for both the beam bottoms and slab soffit. The slab tables were supported from the beam bottom tables, helping complete the task quickly and efficiently with fewer props. While stripping the beam bottoms, the slab tables were left "hanging" with the use of coil loop inserts cast into the slab and helped solve the problem of storage on site. Over 18,000 sq. ft. of Dokamatic Tables arrived on-site pre-assembled and were used to complete the 1st level in only two pours. "With a 19'0" floor to floor height, we were very concerned about safety and productivity while erecting the formwork. The Dokamatic tables we used allowed us to set and position the tables from the ground level quickly and safely. When it was time to erect this system, we found it was safer, cleaner, and more organized than any other system we have used" replied Project Manager, Bill Gardner. ■

The innovative Dokamatic Table was designed to dramatically increase formwork handling production whenever medium and large floor slabs have to be cast.

400 South The Strand, California

Dokaflex S Enjoys More Success on the West Coast

Doka's New Dokaflex S forming system reduces time and labor at 400 South The Strand, a luxury eight-unit condominium building located in Oceanside, California.

In order to achieve the type of high-end finish necessary for the building's 10,000-square-foot post-tensioned concrete parking deck in a compressed time frame, concrete contractor Quintessa Construction relied on Doka's new Dokaflex S floor slab system. The contractor had previously used aluminum frames and beams for forming, but made the switch to Dokaflex when they realized the system requires only one worker for each step and would save considerably on time and labor. Launched in January

Dokaflex S, the one-man system, offers flexibility to form any building or shape.

Triangular marks on the beams allow for spacing props and stringers at a standard 4' x 8' grid with no measuring required.

at the World of Concrete, Dokaflex enables wider spacing of props and beams as well as easier marking on beams. With only five separate components, the one-man system can be assembled from the ground, offering ease-of-assembly and flexibility to form any building or shape. In addition, because Dokaflex can be used with any grade of plywood, the contractor was able to achieve the desired finish for the concrete slab.

Doka personnel were on-site to explain the sequence of each of the system's five components, considerably increasing the productivity of the crew. Closed in on two sides by buildings and backing up to a large hill, the parking deck (which incorporates shotcreted walls) also was constructed using only the Dokaflex system. ■

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The modular and symmetrical panels of the Framax Xlife ensure the best possible utilization of formwork.

Three PNC Plaza, Pittsburgh

Complex Project, Effortless with Doka Formwork

When construction is complete next year on Three PNC Plaza, a 23-story, 780,000-square-foot tower in downtown Pittsburgh, the structure will hold the distinction of being the first new skyscraper constructed in the city in 20 years.

To assist with the concrete construction on this complex project, construction manager P.J. Dick turned to Doka to supplement its existing 6,000 square feet of Framax formwork with an additional 16,000 square feet, and Doka's MF240 climbing formwork platforms. The building construction consists of eight concrete cores which included large steel embeds, 32' high foundation walls, and below ground parking decks. Because the 14-story cores change size at the 8th-floor level, plenty of pre-planning was necessary to account for this shift.

The cycle application was different for each of the cores since there were various core dimensions, steel embeds, and opening locations for each core. Doka's engineering team met with the customers and pre-planned every detail of each core with multiple drawings showing the different phases of the construction sequence. Utilizing the framed formwork Framax Xlife and MF-240 on each core to make the best possible fit, the systems ensured that the contractor would keep on schedule.

Construction of the multi-shaped cores, together with the 32-foot foundation walls, made the Framax's flexibility invaluable on a project of this scope. "The versatility of Framax in conjunction with the MF-240 platforms has made it easy to take several multi-shaped concrete structures vertical with a quick cycle time. Doka's ability to deliver the MF-240 platforms already assembled (which saved space on a tight job site) and respond promptly to daily changes also has helped to keep the project on track" said Brian Katanick, the projects concrete superintendent. ■

Brian Katanick, Superintendent, PJ Dick

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