

DokaXpress

The formwork magazine Vol. 20 Issue 1

doka



Success with Superdek

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« Superdek. Bringing
Safety and
Efficiency to
our Customers »



Although construction is one of the world's largest industries, employing more than 7 percent of the world's workforce, it lags behind other industries in terms of productivity enhancements. A report released by the McKinsey Global Institute, "Reinventing construction through a productivity revolution," highlighted the issue of the construction industry's poor productivity record. While other industries such as retail and manufacturing have drastically improved productivity through automation and advances in technology, the construction industry's productivity has not seen significant improvement.

While this may be the case for the construction industry at-large, at Doka we are proud of our efforts to support the improvement of productivity through both technology and automation, while keeping safety as our top core value. One such example is the launch of Superdek-- a fast, safe and simple handset drop head slab formwork system designed to increase productivity, provide for flexibility and improve user safety. In fact, it was developed specifically to improve productivity as our clients complained that so many formwork solutions involve too many parts and pieces. Designed with a large grid / prop space up to 8-foot-by-8-foot in size, Superdek immediately reduces the number of parts and pieces on site and significantly reduces the quantity of props required for the active deck and each re-shore level below. Superdek, already known by some concrete contractors as the "Superhero of Slab Formwork," also addresses the hazardous working conditions along the slab edge and unsafe working conditions in certain areas of assembly and disassembly, especially around the perimeter of the building structure. Its design is extremely safe for the user, as it allows for the setting to take place safely from the ground below and far

enough back from the slab edge, so the user does not have to be tied off during setup of the perimeter formwork beams. No longer is it necessary to be on a ladder close to the slab edge sliding stringers and joist outside the building envelope, hoping that nothing will fall. Superdek's perimeter forming solution is extremely fast and safe for the user to provide increased jobsite productivity.

In addition to new forming solutions that offer improved productivity, Doka's approach to field and engineering support offer great efficiencies for our contractors. We've also expanded our geographic footprint with new offices in Seattle and Denver, ensuring closer access to our products and support. Don't forget that our team offers on-site training and demonstrations in any of our branch offices, or we'll come to you!

As you browse through the following pages, you'll see examples of how our customers are able to be more productive and efficient with our new formwork solution, Superdek. From tackling complex designs and limited space in both an apartment and condo developments in the greater Chicago area, to a fast-track hotel project in Orlando with no crane, and luxury apartments in Minneapolis, Superdek lives up to our mantra that we are more than formwork. I invite you to read what our customers have to say and ask yourself how Doka can help you be more efficient and productive on your next project.

Doka...we are more than formwork. Our dedication to engineering excellence, field support and products that save you time and keep you safe, ensure we are the right partner for you.

Michael Schaeffer

Vice President, Doka USA



Doka AR app: This edition of the Xpress is supported by the AR app, meaning you can use our free app to maximize your experience and fully unlock a variety of extra media, including images, videos and 3D models.



AR Marker Symbol: Use the AR markers to find even more content. Open the AR app on your smartphone or tablet device, scan the image and fully experience Superdek.

News in brief



March 10-14, 2020.
Doka Booth #F3775

Join Us at CONEXPO-CON/AGG 2020

We invite you to experience **#MoreThanFormwork** at CONEXPO-CON/AGG 2020 featuring:

- New record-breaking slab formwork: Superdek
- Innovative Bridge Solutions
- Digital Jobsite Technology.
- Mention Doka Xpress and enjoy a complimentary beverage at our booth bar.



issuu App: Doka Xpress is everywhere and at any time ready -on-hand on your smartphone or tablet device. With the issuu app, you can access all our Doka Xpress editions from anywhere in the world. To access our current edition, please visit www.doka.com/xpress.

Doka Online Shop

The Doka online shop in the USA is now live, meaning clients can register and purchase supplies today! The vast selection of components includes items such as timber beams, plywood, safety products and floor props, with further products being added to the portfolio. Visit shop.doka.com



PROJECTS

Facts

Location: Evanston, IL

Type of structure: Condominium building

Height: 285 ft.

Stories: 18 stories

Construction work by: Concrete Structures of the Midwest Inc.

Architect: ESG Architecture & Design

Cycle time: 4 days

Sq. ft.: Approximately 12,000 per floor

Construction time 4-5 months for the concrete structure

Products used: Reshoring: Eurex Props and Doka Prop SD 350; Shoring: DokaFlex, Superdek; Other: 10k Shoring for balconies

Concrete Structures was the first contractor in the Midwest to use Superdek. The Avidor Apartments development in Evanston, Ill., is the contractor's second project using the handset system.



At 50 pounds, the Doka Prop SD 350 has the same lightweight design as other Doka props, but offers increased capacity—up to 13.5 kips—regardless of extension.

Tackling Complex Designs and Limited Space at Avidor Apartments in Evanston

The Challenges:

Limited space on this jobsite makes equipment storage difficult. Plus, the project included a complex staggered-balcony design and parking garage slabs with slopes both on top and underneath.

The Solutions:

For the parking levels' double-sided sloping slabs, Concrete Structures used Dokaflex, a floor-slab formwork system with a flexible grid that is adaptable to any shape, layout and slab thickness.

The contractor then switched to Superdek drop head slab formwork for the residential floors. Crews were able to install the handset system quickly and easily, enabling the contractor to work within a four-day cycle.

Superdek allows for a much cleaner and safer jobsite. Workers were able to store equipment under the shoring without shoring legs getting in the way. With less equipment laying out in the open, workers had more space to safely move around. Additionally, because Superdek is assembled and disassembled from below, the risk of injury from falls and falling tools is reduced significantly.

The balconies change locations every two floors. The contractor used 10k Shoring and cantilevering C8 channels to create the work decks below. The 10k system is ideal for shoring slabs at a wide range of heights, and it is especially effectively for heights over 18 ft.



« Compared to other systems, the Superdek upgrades are souped up on steroids! It's nice to be able to do everything from underneath the decks. »

Chad Czerwinski, Superintendent, Concrete Structures of the Midwest



◀ **Forming Slabs at Avidor Apartment Complex in Evanston**
See our latest YouTube video.



PROJECTS

The Superior House luxury condominium development in Chicago was the first project in the Midwest to use Superdek. "The speed of this system is amazing," said one carpenter working on the jobsite.



Safety, Speed Key to Success
at Chicago's Superior House Luxury
Condo Development



Facts

Location: Chicago, IL

Type of structure: Condominium building

Height: 140 ft.

Stories: 13 stories

Construction work by: Concrete Structures of the Midwest Inc.

General contractor: Power Construction Company

Architect: FitzGerald Associates Architects

Developer: 360-366 Superior LLC
(Ascend Real Estate Group LLC)

Cycle time: 3 days

Sq. ft.: Approximately 12,000 per floor

Construction time: 4 months
for the concrete structure

Products used: Core: Frami Xlife with Platform K for slab openings; Reshoring: Euxex Props and Doka Prop SD 350; Shoring: SuperDek



« We had the privilege of being the first in the Midwest to use Doka's Superdek system. It has clear advantages over systems we've worked with in the past because it is efficient and helps us to avoid using ladders. Because we could do more work from the ground, we didn't have to worry about falls—which is a main contributor of injuries in our industry. »

James Alekna, Scaffold Foreman,
Concrete Structures of the Midwest

The Challenges:

Safety is a priority on this fast-track project in downtown Chicago, thanks in part to a tight deadline and an even tighter footprint. To build 13 stories in four months, the contractor required a formwork system that would enable a three-day construction cycle.

The Solutions:

Concrete Structures found Superdek to be a very quick handset system that ultimately saved the contractor time and money. For instance, a six-man crew built the first half of the 9th floor (6,500 sq. ft.) in 3.5 hours—a production rate of around 310 sq. ft. per manhour. Stripping was fast and clean. Because all racks are on bolt-on caster wheels, the crew found it easy to take out the joists and move them via the racks.

Superdek also allowed the crew to move and store equipment under the shoring with limited obstructions from shoring legs.

Workers were able to install the forming equipment from below (on the ground), which—in addition to speeding cycle times—minimized the risk of falls and created a safer work environment.



◀ Doka Superdek at
Superior House in Chicago
See our latest YouTube video.





With Superdek, workers can safely form around the building perimeter from inside the building on the slab below. Edge beam cantilevers from an interior stringer allow the perimeter slab edge to be set from below and maintain the drop head function.



PROJECTS

During preconstruction, contractor CCK Construction Services approached Doka with the idea of bidding this Orlando (Fla.) hotel project without the use of a crane, which was an approach that was unique from all other bidders.

Forming a Fast-Track Hotel Project in Orlando with No Crane

The Challenges:

CCK Construction Services had to complete work under a very tight schedule, and on a jobsite with no crane.

The Solutions:

CCK chose Doka's fast vertical and horizontal handset systems, which can be set without a crane. Superdek was handset in a large 8x8-ft. grid, which significantly reduced the amount of material onsite to shore the active floor and decreased the number of Doka Eurex 30 Post Shores needed for reshore levels.

Frami's light weight allowed CCK to quickly handset formwork for the hotel's 12-ft.-tall shear walls. The contractor was also able to use one system for all walls and columns, thanks to Frami Universal Columns' flexibility to adapt to different column dimensions.

The increased productivity achieved with these systems enabled CCK to meet the aggressive project schedule. Work was completed in 90 days.

Facts

Location: Orlando, FL

Type of structure: Hotel

Height: 40 ft.

Stories: 4 stories

Construction work by:
CCK Construction Services Inc.

Cycle time: 240 sq. ft. per manhour

Sq. ft.: 80,000

Construction time: 90 days

Products used: Core: Frami Xlife with Platform K; Reshoring: Doka Eurex 30 Post Shores; Shoring: SuperDek; Other: Frami Universal Columns

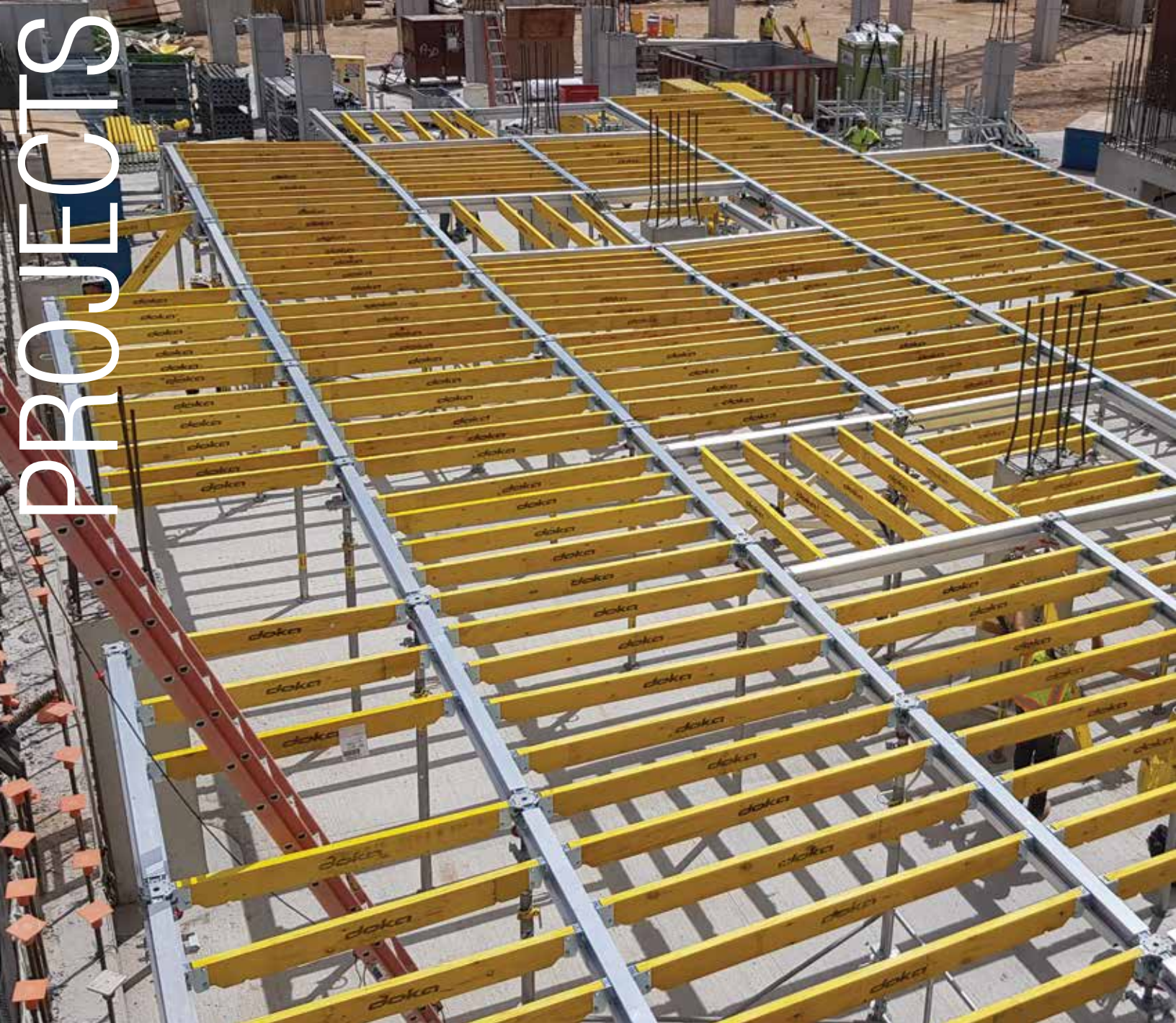


“I’m in love with this system! Being a first-time user, I was skeptical at first. But once we started, I couldn’t believe the production rates we were getting while using a handset system. The most impressive part, aside from the large grid, was how quickly we were able to set and strip the perimeter at the slab edge. ... Doka has done it once again!”

Roman Ramirez, Superintendent, CCK Construction Services

In addition to hand-setting the slab formwork, CCK utilized Doka's hand set Frami formwork system on the hotel's 12-ft. tall shear walls.





What sold Adolfson & Peterson Construction on Superdek was the 8x8-ft. grid spacing, the ease of use on dropheads, and then ultimately how fast the system strips.



During construction, contractor Adolfson & Peterson Construction realized that a handset system was necessary since the crane could not reach the entire footprint.

Minneapolis' Lakehaus Luxury Apartments Face Limited Crane Reach

The Challenges:

This project used one tower crane that cannot completely reach the entire footprint of the building. Additionally, there were sloping slabs and varying slab thickness (some thicknesses up to 26 inches), as well as column dropheads.

The Solutions:

Adolfson & Peterson Construction found they needed a handset shoring solution due to the tower crane restraints. Superdek is a handset shoring system that can easily cycle from floor to floor with the drophead feature. With Doka's bolt-on castor wheels, A&P can move equipment around the entire slab of the active deck.

Although challenging, Superdek was able to tackle the column dropheads and sloping slabs. In addition, Doka was able to work with Adolfson & Peterson Construction to use the equipment they already owned on the thickened slab areas, so the shoring layout was not changed from level to level.

Facts

Location: Minneapolis, MN

Type of structure: Apartment Complex

Height: 109 ft.

Stories: 8 stories above grade, 2 stories below

Construction work by: Adolfson & Peterson Construction

Sq. ft.: 38,000

Construction time: Spring 2019 Start; Winter 2019 Completion for Concrete Work

Products used: Reshoring: Doka Eurex 30 Props; Shoring: SuperDek



« The 8x8-ft. spacing allows us to run carts up and down and in between. This aids in the system erection and disassembly. You have the ability to assemble Superdek without using ladders, lifts or any other devices. You assemble it from the ground up. It is brand new to us. After 31 years, this is pretty exciting. »

Dale Schaeffer, Project Supervisor, Adolfson & Peterson Construction



◀ **Doka Superdek at LakeHaus Uptown Minneapolis**
See our latest YouTube video.





PROJECTS

Facts

Location: Indianapolis, IN

Type of structure: Residential/Apartments

Height: 75 ft.

Stories: 6 stories

General contractor: Holladay Construction Group

Concrete contractor: Lithko Contracting, LLC

Architect: CSO Architects

Developer: Spectra Student Living

Cycle time: Level 2: (6 days) includes handrail, post-tension heads, embeds and edge form. Level 3: (9 Days) includes wreck, reset, and re-shore; handrail, post-tension heads, embeds and edge form. The walls and columns between the 2nd and 3rd floor were leading ahead of shoring by 3 days.

Sq. ft.: 11,500 sq. ft. of deck per level

Construction time: Nov. 16 – Oct. 17. Includes first day of shoring install to the 3rd floor deck pour.

Products used: Core: Frami, Platform K; Reshoring: Eurex 30 Props; Shoring: Superdek; Other: Frami for Columns

At Vivio on 10th, the six-story student housing facility at IUPUI faced a tight site footprint and limited crane capacity.

Vivo on 10th Tackles Installation of Cast-in-Place Post-Tension Decks by Using Superdek

The Challenges:

This six-story student housing facility at the IUPUI campus is an extension of an existing facility, which means a tight site footprint and limited laydown area. Additionally, there is limited crane capacity and crane time. This project was the first time Lithko used Superdek.

The Solutions:

To effectively place two stories of cast-in-place walls and post tension decks. Frami was used to handset gangs on the ground and fly them into place for the core walls. Frami was also utilized to handset columns into an “L shape” and set in place.

The bias-cut corner efficiently cycled the core system. Using the Platform K ensured a safe working environment in the locations where the Superdek perimeter ends. Also, Superdek could be efficiently loaded so that once material was unloaded from the truck, the contractor could begin working.

Superdek allowed the work to proceed safely from the slab below and be handset in all areas. The deck perimeter could be set from the slab safely inside building perimeter.

During construction, Doka was on hand to train Lithko on best practices when using Superdek. This is one of the reasons the contractor chose Doka and Superdek – they were able to provide the training needed to get the labor up to speed with the new system. Doka was able to provide systems that allowed the contractor to operate in a safe working environment at all times. Additionally, Doka was able to provide for the entire scope of the project. Doka’s quick, efficient communication throughout the process from project quote to project closeout was an advantage.



This project was a new venture for Lithko Contracting, since it was the first time they used Superdek.



“The flexibility of the Superdek system allows for quick and efficient field modifications. The installation process with Superdek allows for maximum productivity, as each member of the crew is never waiting on another to complete their task. The “sure” connections, whether they are post to stringer or stringer to joist, instantly provide you with the confidence that the system is installed correctly and safely.”

Kyle Nagel, Project Lead, Lithko Contracting

TESTIMONIALS

Superdek, the Superhero of Slab Formwork

Learn from those who have used Superdek why they are immediately sold on its efficiency and safety. It's not just another piece of equipment, it truly "saves the day."



« This system is awesome. You don't need to climb up and down all day long. You can do everything from the ground. »
Perfect. Excellent. Love it!

Butch Sikora, Carpenter (Safety Foreman),
Concrete Structures of the Midwest



« Compared to other systems, the Superdek upgrades are souped up on steroids! It's nice to be able to do everything from underneath the decks. »

Chad Czerwinski, Superintendent,
Concrete Structures of the Midwest



« You take the ladder out of the equation with this system saving time and money. The speed of this is unbelievable. I think it's a good system and should make it big in Chicago. »

Jimmy Dick, Carpenter, Power Construction



« We had the privilege of being the first in the Midwest to use Doka's Superdek system. It has clear advantages over systems we've worked with in the past because it is efficient and helps us to avoid using ladders. Because we could do more work from the ground, we didn't have to worry about falls—which is a main contributor of injuries in our industry. »

James Alekna, Scaffold Foreman,
Concrete Structures of the Midwest



« I'm in love with this system! Being a first-time user, I was skeptical at first. But once we started, I couldn't believe the production rates we were getting while using a handset system. The most impressive part, aside from the large grid, was how quickly we were able to set and strip the perimeter at the slab edge. ... Doka has done it once again! »

Roman Ramirez, Superintendent, CCK Construction Services



« The 8x8' spacing allows us to run carts up and down the aisles for both erection and disassembly. Smiles all around for the future of using this product. It's a win-win for both of us. After 31 years, this is pretty exciting! »

Dale Schafer, Project Sr. Superintendent, Adolfson & Peterson Construction



« It's really easy to learn, really easy to figure out. Went up really fast. And it's super easy to work with. We can reach everything and didn't have to use a ladder. You could reach everything from the ground. »

Jake, Carpenter Foreman, Adolfson & Peterson Construction



« The Doka guys came out the first day to help us set up and get going. All my guys picked it up pretty easy and pretty fast and I really enjoy the system. »

Phil, Carpenter, Adolfson & Peterson Construction



« It's my first time using Doka Superdek. It went up super fast. It's a lot easier than other forms. We didn't need any ladders, just reach. It's comfortable, goes up fast. It's awesome. »

Josh, Foreman, Adolfson & Peterson Construction



Q&A with Doka – Everything You Want to Know about Superdek

Dietmar Wagner, Regional Product Manager at Doka, answers questions on what you should know about the development and success of Doka's new handset shoring system, Superdek.

Q. How/Why did Superdek come to be developed?

A. Doka did a long study on shoring systems in the United States. Based on the study, Doka put together a slab formwork development team to create a new system that takes care of the existing issues.

The new system would build on Doka's over 150 years of experience in formwork design, taking into account the high product quality and advanced engineered solutions.

The biggest issues faced onsite and with existing systems included:

- Too many parts and pieces to handle onsite
- Fixed designs that either needed modification or did not work properly for

varying jobsite conditions

- Hazardous working conditions along the slab edge and unsafe working conditions in certain areas of assembly and disassembly, especially around the perimeter of the building structure

The conclusion of this study and the development of Superdek was based off the needs of our customers across the U.S. market who were looking for solutions that would increase productivity, be flexible for varying jobsite conditions, and most of all improve user safety.

Based on this demand, Doka looked in detail at all of their existing slab formwork products currently in the market. Reviewing all the features and benefits of each to define what worked well, and what areas of improvement should be

focused on, is what brought Superdek to life.

Q. Describe the Superdek development process.

A. Each individual feature has been tested in house and on jobsites. A joint force of Doka product specialists and contractors on jobsites looked at details of what is possible to improve upon in three key areas: productivity, flexibility and safety. The biggest challenge had been to make the slab edge safe and allow for high productivity – both in setting and stripping. We believe we have figured the top possible solution for this.

The development process was very thorough in order to guarantee a successful launch into the market.

Q. What are the BEST feature of Superdek and why?

A. Actually, there are many unique features



Superdek Dream Team: (from left):
Gerald Burgstaller, Georg Glösmann,
Alexander Augustin, Philipp Schagerl,
Christoph Einfalt, Christoph Baron

Pictured is part of the Superdek Dream Team located at Doka's Main headquarters and manufacturing facility, Amstetten, Austria. Using state of the art technology coupled with engineering skills, on-the-job observations including feedback and learnings from contractors across the USA, the team vigorously tested every component of the Superdek system to ensure maximum safety and ultimate productivity in all areas of slab forming operations. An experienced team, coming together and combining the best components, enhancing existing ones, and developing revolutionary new standards is what makes Superdek a success story.

that make the system amazing to work with. One example is Superdek's solution for forming around the perimeter of a building. Its design is extremely safe for the user, allows for the setting to take place safely from the ground below and far enough back from the slab edge so the user does not have to be tied off during setup of the perimeter formwork beams. No longer is it necessary to be on a ladder close to the slab edge sliding stringers and joist outside the building envelope, hoping that nothing will fall. Superdek's perimeter forming solution is extremely fast and safe for the user to provide increased jobsite productivity.

Q. How does Superdek compare to most competitor systems in the market?

A. As mentioned earlier, Doka looked into every detail of existing systems in the market with a focus on increasing productivity as well as improving flexibility and user safety. Considering this, the design was done so each area improved

upon what is already existing in the market. For example, an increased grid / prop spacing significantly reduces the overall number of part and pieces being handled and cycled throughout a project. In typical application, Superdek has an 8'x8' grid spacing, which means one prop catches 64 sq. ft. of the deck. Compare this to the market and that's 40-50 percent less props required to bring onto the job, cycle each pour, level and strip each pour. Plus, the 40-50 percent less props is not only on the active deck, but also less for each floor down below where you have reshoring. We feel that such an improved design is significantly meeting our customer's request for increased productivity and adding directly to their bottom line.

Q. What does this new system mean for contractors forming slabs?

A. The setting time and stripping time is going to set new records. For the first time, customers clearly identify this as the fastest system they have

ever used. This allows them to cut down on their schedule, getting the job done safe and faster.

Q. How successful has Superdek been on projects in the USA so far?

A. Since the launch of Superdek earlier this year, it's been already introduced on dozens of projects in the Midwest, Southeast, Mid-atlantic, Southwest, and Northeast areas.

The feedback from our customers and the users in the field is what the design of Superdek is based upon. Now with the system in hand, the results users are achieving is proof that Superdek is in fact the next generation slab formwork system that increases productivity, is flexible and improves user safety.

Many of our customer's experiences can be found on our social media channels. Simply search #Superdek or #SlabFormworkSuperHero to hear about them first hand.



View 3D models within this Doka Xpress Issue using the DokaAR app

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◀ Superdek in Minneapolis with Adolfson & Peterson Construction



Hear what our customers are saying:



◀ Superdek debuts in Maryland with Miller and Long




March 10-14, 2020
Register now with Doka's special promo code and save!
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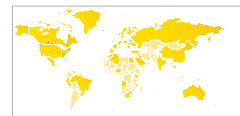
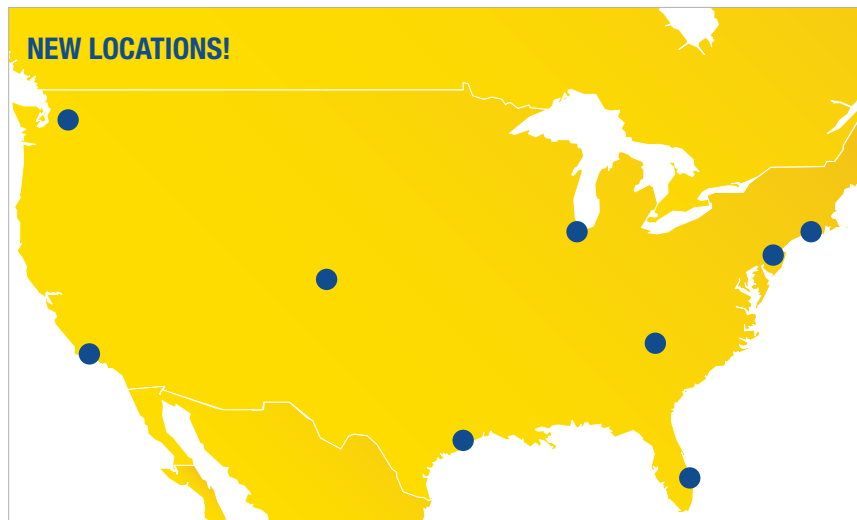
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Join Us At CONEXPO

Ready to break records in slab formwork production? See live **Superdek** demos at CONEXPO and learn how to boost productivity by 57%.

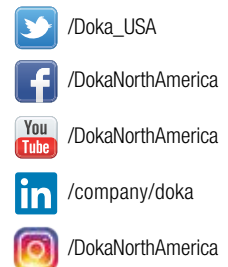
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In some cases the site photos show the situation during formwork assembly and are therefore not always complete from the point of view of safety.

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