

DokaXpress



The formwork and scaffolding magazine Issue 2022

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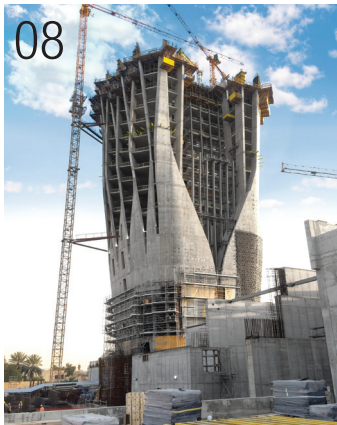
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To our
clients and
colleagues,



It gives me great pleasure to write the introduction for this year's Doka Xpress and share some of the highlights of the past twelve months, as well as some thoughts on what we can expect in the months ahead.

While the pandemic has continued to disrupt many of the world's businesses and supply chains, I'm pleased to confirm that several of our country organisations continued to thrive in 2021, with Doka Turkey deserving a special mention for its excellent performance. In addition to our work in the field, 2021 was also a positive year for our B2B E-commerce platform, which, in combination with our robust supply chains, helped to keep our clients in the UAE, Oman, Qatar and Turkey in regular supply of components and systems for the most competitive price available.

While travel was made difficult due to the various restrictions, our team was able to participate in the 22nd Uzbekistan International Exhibition for Construction Industry (UzBuild), while back in Dubai, our teams celebrated not only our company's contribution towards delivering several of the Expo 2020 Dubai pavilion projects, but also participating in the event, courtesy of the Austrian Pavilion.

In continuation of our work on legacy projects, Doka supported the timely engineering and formwork solution for the Zaha Hadid-designed Central Bank of Iraq, a 170-metre-tall tower set on the banks of the Tigris, while in business our shareholding in AT-PAC ushered in a new era of competitiveness for our ever-growing presence in the global scaffolding market.

Much like the construction industry in 2020, 2021 has been yet another year fraught with challenges, however, I am proud to say that Doka's teams have continued to uphold the high standards expected of them, while supporting our brand to remain a byword for formwork, scaffolding and engineering excellence. Together, we look forward to embracing the challenges of 2022, while helping to deliver more of the region's scheduled projects.

Sincerely,

Ralf Bürger

Director Region, Middle East & Africa
Doka Group



From left to right: Caglar Derin, Doka Turkey managing director, Ender Ozatay, Kerem Yilmaz and Oğuzhan Oyan.

UzBuild

While much of the world continued to contend with various travel restrictions, the 22nd Uzbekistan International Exhibition for the Construction Industry (UzBuild) went ahead as scheduled from 22nd - 24th September at the Ankhor Lokomotiv Park in the capital city of Tashkent, where 150 companies from 16 nations participated in shar-

ing their latest products and technologies. Led by managing director, Ender Özatay, the Doka Turkey team highlighted their recent engineering and formwork solutions that were used in the construction of Uzbekistan's first skyscraper, Nest One, a multipurpose tower that includes residential, office and commercial space, while also highlighting several of Doka's latest technological products, services and digital applications. ■



Mrs. Hilde Umdasch, Chairwoman of the Supervisory Board, Umdasch Group and CEO Wolfgang Litzlbauer are joined by the Doka Turkey team on the banks of the Bosphorus.

Visit of Mrs. Umdasch to Turkey

As one of our region's stellar performers in 2021, managing director Ender Özatay and the Doka Turkey team had the opportunity to host Mrs Hilde Umdasch, Chairwoman of the Supervisory Board, Umdasch Group and Chief Executive Officer, Wolfgang Litzlbauer who were given an in-depth tour of the company's facilities, while taking the opportunity to explore some of Istanbul's world-renowned cultural treasures. ■

F Tower

Already acknowledged as one of Africa's most exciting high-rise projects, the F Tower, which is located in Abidjan, Ivory Coast, will become the continent's tallest building upon completion, exceeding the current title holder, the Leonardo in Sandton, South Africa by some 160 metres. Reaching a height of 385.8 metres, F Tower is being developed by international main contractor, BESIX, with Doka appointed to work on the entire core and slab formwork package. Amongst the systems to be implemented will be Doka's Table Lifting System TLS, which will greatly assist progress on site, while supporting the project's overall delivery schedule. ■



News flash



From left to right: Christian Stirm, Stephanie Lutz and Doka UAE and Oman managing director, Michael Arnold.

Construction Business Awards

Amongst the various honours and awards in 2021, our team were delighted to receive 'Scaffolding and Formwork Company of the Year' at this year's Construction Business News Middle East Innovation Awards. Having delivered some fantastic results under challenging circumstances, we are deeply proud of our team members across the region who made this possible and to our innovative products and systems that are helping to make construction and industrial sites safer and more efficient. ■

Doka @ Expo 2020

After six exciting months of events, performances, exhibits and action, Expo 2020 Dubai finally closed its doors on 31st March. Happily, Doka was honoured to participate as an exhibitor with the Austrian Pavilion, where visitors were able to learn more about what Austrian businesses have to offer, and how Doka is driving digitisation in the construction sector.



To experience some of the highlights of Expo 2020, please visit:
<https://www.expo2020dubai.com>

After a year of delays due to the pandemic, Expo 2020 Dubai got underway in October 2021, and with it a series of immersive and interactive experiences designed to thrill, inspire, inform, and excite visitors who gained access to over sixty shows, 200 hundred restaurants and over 200 pavilions. Amongst the dedicated spaces were 191 country pavilions, which had been specially equipped to showcase the best of what each nation has to offer.

Designed by Querkraft, the 1,600m² Austrian pavilion featured 38 intersecting cones, which encompassed both local building traditions and intelligent Austrian climate engineering, resulting in a highly eco-friendly building that saved approximately three-quarters of the energy needed for a building of comparable size.

Inside the pavilion, and on show for the duration of the Expo were 54 Austrian innovations that were split into two phases under the focus of eight categories, namely Smart City & Energy, Circular Economy, Mobility, Digital Opportunities running from October till December 2021 and Water & Agriculture, New Materials, Health & Life Science and Digital Security from January till March 2022.



Positioned under Digital Opportunities in the first phase, Doka showcased some of its landmark achievements in Dubai, including its work on the Burj Khalifa – the world's tallest man-made structure, and how its software-focused products and systems, such as Concremote, DokaXact and Kontakt are supporting a faster, safer, and more sustainable construction industry.

As a product that first debuted just over six years ago, Concremote combines the concrete maturity method with concrete monitoring and concrete strength testing into one convenient device that works with your smart phone or tablet device and informs site teams at the optimal moment to commence deshuttering, thereby saving time, reducing costs, increasing safety, and enhancing concrete quality.

- 1 The Austrian Pavilion at Expo 2020 Dubai.
- 2 Doka was amongst several Austrian companies selected to be showcased at the six-month long event.
- 3 The Austrian Pavilion featured several of the country's better known brands and how they've supported Dubai's evolution.



With DokaXact, optimal formwork positioning is made possible through the world's first interactive sensor-based system for the accurate positioning of wall formwork elements for vertical structures such as high-rise and concrete cores; a particularly useful tool in the UAE.

At a high-level, Kontakt is Doka's smart digital tool for construction project management, optimisation and documentation that helps to ensure all necessary stakeholders always remain informed through real-time communication and updates.

In addition to the featured products and systems above, Doka showed an assortment of 3D printed formwork components, illustrating its commitment to more cost-effective and environmentally friendly production solutions. ■



We're thrilled to be part of Expo 2020 Dubai. The exhibition is a unique platform for us to present ourselves to millions of visitors as a company and innovator and to demonstrate the added value that we offer the construction sector in the future, especially with our digital solutions. With our digital services, we're focusing on the construction methods of tomorrow. Therefore, I'm convinced that at Expo 2020, we're making a significant contribution to reinforcing the international perception of Austria and its innovative potential.

Robert Hauser, CEO of Doka.

Pier-to-pier bridges

As Qatar's first infrastructure deadline for the FIFA World Cup draws ever closer, all hands are on deck to deliver some of its most luxurious developments, including the serene waterfront hideaway of Gewan Island.

Self-described as an "eclectic mix of recreational, commercial and residential facilities," which includes private island mansions, shopping and dining districts, Gewan Island will be an example of Qatar's efforts to develop a luxurious community for both local and international investors, seeking refuge from the hustle and bustle of the capital just a few minutes away.

Covering an area of around 400,000m², Doka Qatar was brought in to support the development of Infrastructure Works

PK-2, a series of suspended bridges that will ultimately connect Gewan to its surrounding areas, with three piers interconnected between the spans. Working closely with Navayuga Engineering, Co WLL, Doka Qatar's team, which included engineers Vicente Noynay, Joery Villegas and Gerald Pagulayan proposed an innovative solution with strong technical and design calculations which included a formwork concept with special brackets as a main support with lowering wedges for decking level adjustment. This was achieved by using IPE 400 profiles as primary beams coupled with Top 50 panels for decking and sidings.

Commenting on the solution, Vicente Noynay said, "This project was particularly challenging, however, thanks to our experience and the support of our experts, products and systems, we delivered a solution using a methodology of formwork which was both safe and environmentally friendly. By avoiding the requirement for constructing a dry bay to complete the bridge



pile cap casting, we were able to keep the project on schedule by keeping the necessary components and required logistics to a minimum.”

Commenting on the project, Akula Satya, Senior Project Manager, Navayuga Engineering commented, “Doka Qatar’s team delivered their proposed solution along with onsite training, which helped to keep things on track. By using a steel bracket as a main support that was then welded to the casing, we were able to minimise the volume of material required, which has helped us to adhere to the proposed schedule of works with ease.”

With works anticipated to be delivered by 30th April 2022, the project is likely to be complete by the time the world’s cameras turn their attention to the peninsula nation as the world prepares for the first-ever Middle Eastern-hosted World Cup. ■



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- 1 Gewan Island is tipped to be amongst Qatar’s more secluded and luxurious destinations upon completion.
- 2 Doka formwork in action as Gewan begins to take shape.



PROJECTS

1

- 1 Yet another iconic building from Zaha Hadid Architects.
- 2 A rendering of the Central Bank, located on the banks of the Tigris River.
- 3 Doka's engineering expertise and formwork were both essential towards delivering the project on time and on budget.



Pride of a nation

Commissioned as an embodiment of new beginnings, Doka Turkey was selected to work on this Zaha Hadid-designed masterpiece, which will soon adorn the Baghdad skyline as the headquarters of the new Central Bank of Iraq.

"Rising from the sloping banks of the Tigris River in Baghdad, the design for the new headquarters of the Central Bank of Iraq (CBI) conveys the core values at the heart of the institution: Solidity, Stability and Sustainability." This synopsis, as quoted from the Zaha Hadid Architects page, would explain why its designer felt such pride in its creation. As an Iraqi British citizen, Zaha Hadid lived to see her country of birth go through several transformations before being offered the opportunity to design its Central Bank headquarters, which was officially signed off at a ceremony at London's Victoria & Albert Museum in 2012. Speaking at the event, Zaha said: "I am deeply touched that I have been asked to design the new headquarters for the Central Bank of Iraq. I was born in Iraq and I still feel very close to it. I feel very privileged to be working in Iraq on a design of such national importance."

First revealed in 2011, the 170-metre tower was designed to maximise the space of its plot, which is why the building tapers from a narrow base to a wider middle, in tangent with a reducing, structural exoskeleton that steadily allows more light towards the higher floors. With constant references to the importance of the Tigris and its role in shaping the country's trade, the bank's podium level mixes hard and soft landscaping with its alternating exoskeleton, allowing light to dapple the interiors, mimicking the light as reflected from the river.

Working with Daax Construction, Doka Turkey was hired to provide a formwork solution for this highly challenging project, which included a total construction area of 93,552m². Due to the omnidirectional nature

of the curtain wall, Doka's team were required to find a solution for what one engineer referred to as "one of the most difficult reinforced concrete structures in the world." By starting with a BIM design, Doka's team created a custom Top 50 formwork with specially made 3D timbers for the outer walls, allowing the system to work with the variable heights and shapes of the curved and inclined structure. For the main shaft wall of the tower block, a hydraulic climbing system was used in order to maximise time, while adaptable slab formwork was employed to manage the amorphous shape of the building.

As with each of Doka's projects, safety was adhered to according to European Standards, on-site training was provided and certifications issued, and the operational services were all delivered on time. While challenging, the client was 100% satisfied with the work delivered and as such, both companies have been able to contribute their part towards leaving an enduring legacy for one of Iraq's most revered talents. ■



With its unusual shape, our team considered this a particularly challenging project in terms of finding the right formwork solution. Thanks to the engineering design and support received by Doka, the project cycle worked very efficiently - as a result, we are now very close to completing our activities.

Mr. Murat Sener, CEO Daax Construction
(Speaking on behalf of the client)

A system for all stakeholders

Why Ringlock makes as much sense in the boardroom as it does on site.



1

While much has been written on the extensive benefits of Ringlock for site teams, less has been said about the calculated decision for managers to commit additional investment when it comes to either completing their project or maintaining their facilities. In this article, Christian Stirm, Head of Sales, Doka Middle East Africa & Asia Pacific, and Ralf Bürger, Executive Vice President, Doka Middle East Africa & Asia Pacific explain how Ringlock is as much of a sound executive decision as it is a practical one.

As an industry with notoriously fine margins and a highly competitive bidding landscape, the requirement for construction managers to keep costs down, while ensuring their teams have the right tools to do the job safely and efficiently is a delicate balance. While historically this meant remaining on the side of the upfront bottom line, the wider industry's transition towards utilising digital processes and enhanced technology has begun to prove without any doubt that higher upfront costs do not equate to a higher overall spend, but significant time and cost savings thanks to the technology being applied.

"For Doka, the awareness that our products and systems were able to save enough time and resources that it made a serious impact to the project's overall cost was a key turning point. As soon as managers began to understand the difference between the upfront cost and the savings created, more of the larger contractors and consultants began to take a closer look at what we had to offer, particularly for site essential products such as Ringlock," said Christian Stirm.



When you add up the time saved, plus the lower likelihood of an accident, Ringlock's savings become apparent very quickly.

Ralf Bürger,
Executive Vice President
Middle East Africa & Asia Pacific





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Christian Strim, Head of Sales Middle East Africa & Asia Pacific



"While technology in the construction industry is beginning to change the approach to certain processes, the functionality of scaffolding means it remains an essential part of both, the construction and industrial sector – as such, Ringlock isn't reinventing the wheel, but simply optimising it to make it safer as well as more time and cost-effective," added Ralf Bürger.

Since its strategic alliance with AT-PAC, Doka has been able to capitalise on integrating a very well-engineered scaffolding solution with its existing portfolio of time and cost-saving products and systems, while allowing Ringlock to benefit from Doka's extensive international network which includes more than 70 countries and 160 locations. As such, more contractors have been able to understand the significant savings available by using Ringlock, when compared to its predecessors such as tube and fitting.

"The first thing people notice about Ringlock is its lower number of components, which comes with three major



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- 1 Stockpiled Ringlock scaffolding awaiting transfer to sites across the region.
- 2 Ringlock was designed to offer limitless applications thanks to its versatile and compatible design.

advantages. The first being lower installation quantities, the second, additional safety by ensuring components are ergonomic and easy to assemble and thirdly, the overall system becomes up to 50% faster to assemble when compared to traditional scaffolding. In addition, up to 80% of the components can be used for different applications, again helping to keep costs down. While this may not sound like a big advantage, when you add up the time saved with installation quantities and man-hours, plus the lower likelihood of an accident, the savings become quickly apparent," continued Bürger.

Another key aspect of Ringlock is durability. While many scaffolding manufacturers have been known to use low quality steel that can become compromised over time or after being exposed to inclement weather, Ringlock's hot dipped galvanisation on all of its structural components, mean greater longevity, again helping to flatten out the initial cost over many years of service.

"While not specifically integrated with the system itself, Doka provides two highly valuable add-on services for Ringlock, namely servicing and reconditioning, which further extends the durability of the system, and also Hi-Vis®, a scaffold management system that monitors a project's scaffolding requirements in real-time, including resources, labour and material deployed on site.

When you understand the full life cycle of a scaffolding system, and how it can be optimised on each project to deliver maximum efficiency, Ringlock very quickly becomes not just a smart decision for site teams in terms of ease of handling and safety, but ultimately a sound investment at a boardroom level too," concluded Strim. ■

A new era of digital management

As the global construction market continues to slowly migrate towards digitization, Doka maintains its focus on utilising the latest technology to deliver time-saving solutions for its clients, most recently through its scaffolding management system, Hi-Vis®, which has taken site efficiency to the next level.

Ever since Clayton Christensen coined the phrase, “Disruptive change” back in the mid 90’s, successful business leaders have learned to adopt two healthy attitudes. First, to remain alert to weaknesses in your business model and/or the wider market and try to find ways to solve them in the most economical way possible, and second, be aware of how market demand and technology are shifting attitudes towards outcomes and results.

At Doka, our growth and longevity in the market has been largely due to observing these habits while consistently driving new and improved ideas that maximise efficiency and ease of work for our clients. Let’s take scaffolding as an example. While solutions such as tube and fitting ultimately serve the purpose for what it’s designed to do, it is far from perfect. With numerous, fiddly and cumbersome components, ‘Traditional’ scaffolding is not only time consuming to erect, but also a hard day’s work for site teams, while leaving plenty of margin for potential accidents due to its limited capability to integrate safety features. As a solution, Doka launched its modular Ringlock system which isn’t just 30% lighter per square metre, but also 50% faster to assemble with 30% fewer individual components. Equipped with an extensive list of safety features including semi-perforated, steel tread boards through to barriers and enclosed stairwells, Ringlock isn’t just appealing to clients from an ease-of-use point of view, but also because of the amount of time and money saved on site.

Having addressed the physical challenges through ergonomic problem solving, the next question became, “How can we further enhance this system to be even more cost-effective and user friendly?” In identifying the challenges of dynamic resource tracking, team coordination and planning, the concept of Hi-Vis® was born and with it, a new solution that has helped to dramatically enhance site performance.

As a fully digitised platform, Hi-Vis® is a scaffolding management system that provides real-time electronic scaffold requests and scaffold management processes to track all scaffolding resources, labour, and material deployed on site at any given time. Compatible with both Android and iOS systems, Hi-Vis®’s cloud-based software means it can be used simultaneously by multiple stakeholders, while ensuring seamless communication between site teams, including immediate reporting or approvals for any potential problems or solutions.



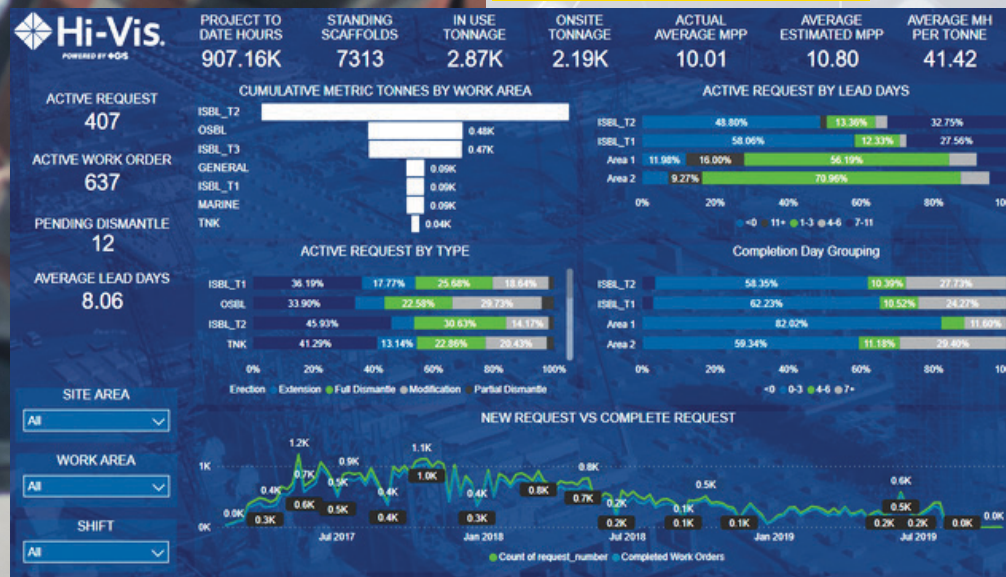
Speaking on behalf of Doka, Mohamed Omran, Business Development Manager, Doka Middle East & Africa said, "By listening carefully to our own engineers and clients, Hi-Vis® was born out of a requirement to make the business of scaffolding even easier. By giving site teams the power to understand productivity, while tracking inventory, they are also given the ability to plan their resources up to several months in advance, meaning a more structured and organised approach to delivery, while gaining greater control over managing cost."

Benefitting from an easy-to-use user interface, Hi-Vis®

gives site teams the ability to request scaffolding erection, modification, and dismantle, while maintaining a ledger of work scheduled, approved, and completed. In addition, thanks to Hi-Vis®'s Tag Management option, scaffolding can be monitored in real time, meaning all inventory is clearly recorded as either in the yard and available for use, or mobilised and erected.

In the same way Ringlock raised the bar for scaffolding, so has Hi-Vis® delivered a highly effective platform for scaffolding management, and in so doing moved the construction industry one step closer to a more efficient, cost-effective future. ■

A screenshot illustrating the broad range of data available through Doka's Hi-Vis, scaffolding management app.





Bridges – ‘not barriers’ – in sub-Saharan Africa

Thanks to Doka's ongoing partnership with Form-Scaff, Doka's products and services are accessible to markets across Sub-Saharan Africa.

Klaas Pouwels, Managing Director for South African-based Form-Scaff tells us more about the sub-Saharan construction market and what has changed since partnering with Doka in 2019.

Since signing an exclusive distribution agreement with Doka in August 2019, Form-Scaff has weathered the global Covid-19 pandemic, but managed to exceed the set revenue targets established between Doka and Form-Scaff before the global downturn.

This was despite crippling lockdowns that completely shut down construction sites in South Africa in March and April of 2020 and later eased to the extent that only limited activity was allowed and people's movements were restricted. In short – the previously buoyant South African construction market was placed into sudden hibernation.

“The consequences were severe, and our earning ability was battered due to our strong reliance on rental business in South Africa. However, it also led us to re-engineer the business for more resilience in future and to adopt new strategies to modernize our offerings to compete on a global stage. Fortunately, as a reliable brand with a long-term presence in the country, Form-Scaff's distribution agreement with Doka has worked well and provided several upsides, particularly in terms of adding brand value. The alliance has already given us the kind of international presence needed to bid on large scale multi-national projects and, as a result, we are already contesting a number of these across the African continent.

“It has become clear that the Doka Frami and Dokaflex systems are extremely popular solutions throughout the sub-Saharan market thanks to their practicality, cost-effective attributes, and crane-free ability. In terms of the rental market the Frami system are becoming increasingly popular and there is a growing demand

in South Africa especially as the post lockdown economy strengthens. We are also undertaking studies into the feasibility of the Framini system, which will provide a more cost-effective system than Frami. While our existing Econo-Form systems are still very popular, we are investigating whether the Doka option should replace or rather bolster this product line in future.”

“Our short – and medium-term pipeline in South Africa is looking very healthy – but heavily reliant on the government's ability to secure the necessary funding – and is made up of 75% of civil construction work which consists of bridges, tunnels, reservoirs, waterworks, and sewage plants. To meet this requirement, Form-Scaff will have to invest in additional Vertical Formwork systems, heavy-duty shoring systems and climbing systems. ■



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Klaas Pouwels,
Managing Director, Form-Scaff



Securing a brighter future for Kenya's agricultural sector

In working with a multinational consortium, Doka's formwork solutions are helping to secure a more robust agricultural sector which will decrease the country's reliance on rice imports for generations to come.

Located 130 kilometres to the northeast of the Kenyan capital of Nairobi, the Thiba Dam is recognised as a major infrastructure project, which upon completion will stretch an entire kilometre in length, eventually creating a reservoir that will enable a second harvest for the region's agricultural output.

Working with a consortium including Nippon Koei, Gibb Africa and Strabag International Cologne, Doka was appointed to deliver a formwork solution for the concrete structures at and around the reservoir itself, such as the spillway chute, spillway transition channel, overflow weir and spillway bridge and sand trap dam.

Through a combination of Large Area Formwork Top 50, Dam Formwork D15 and Load Bearing Tower D3, Doka's versatility ensured that the project could move forward in the shortest possible time, while fulfilling the necessary safety requirements, including the safe transfer of concrete pressure loading.

Speaking on behalf of the client, Piotr Maliszewski, Construction Manager, Strabag International, said,

An aerial view of the Thiba Dam.



"From the start of the project, Doka's technical preparation for the project included in-depth technical concepts and formwork design details that met the contractor's requirements – this added to the team's onsite formwork support, which included dealing with changing site conditions and detailed technical advice helped to ensure the successful progress of the project without any significant delays."

Commenting on the project, senior engineer, Martin Hörlesberger said, "As a project, it is not especially complicated, however, we provided a particularly good solution to implement the extensive water-stop positioning in all stop-end formwork. For the diversion tunnel we designed a box-shaped culvert slab with a hinge-sided formwork which we could shift forward as a single unit, which helped to save time. We also implemented a solution to make them width adjustable for widening sections."

While originally planned to be delivered in 2021, delays related to the pandemic will mean a revised delivery date in 2022. ■



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Martin Hörlesberger, Project Manager
High-rise & Special Projects



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Piotr Maliszewski, Construction
Manager, Strabag International

A stadium for peace

In celebration of the beautiful game, Doka was selected to support the refurbishment and expansion of the Bouaké Stadium in Côte D'Ivoire, which upon completion will play host to a capacity of 40,000 fans and feature prominently in the 2023 Africa Cup of Nations.



The formwork instructor was particularly helpful for us and aided in solving a lot of problems when it came to utilisation, assembly and disassembly of the systems.



Eng. Nelson B. Andrade,
Project Manager, Mota Engil Africa

- 1 Originally opened to host the 1984 African Nations Cup, the Stade Bouaké is receiving a burst of new life from Mota Engil Africa and Doka.
- 2 The newly refurbished stadium will have capacity for 40,000 fans.
- 3 Vitor Aguiar, Sales Manager, Doka Middle East & Africa.

Originally built as a multi-use stadium and officially opened for the 1984 African Nations Cup, the Stade Bouaké became home to Bouaké FC until it fell into disrepair during the First Ivorian Civil War. Today, the stadium is being given a new lease of life through an EUR80m investment, and the contracting expertise of Mota Engil Africa, led by Project Manager Eng. Nelson B. Andrade. In supporting the stadium's refurbishment and expansion, Doka was hired to provide its formwork and engineering expertise, which included the input of Martin Hörlesberger, the man behind the self-climbing solutions for the central core walls and wing walls of the Burj Khalifa, the world's tallest man-made building.

In transforming the existing stadium from 25,000 to 40,000 seats, structural and superficial works were required which involved a combination of inclination beams, specially designed formwork for the column shapes and heights, as well as a fair-faced concrete quality. Through a combination of Dokaflex Slab, Top 50 for the columns and concrete beams and Ringlock for the shoring beams and the slab, the

team provided a versatile solution that also met all the necessary safety requirements, including perimeter handrail posts.

Commenting on the project, Eng. Nelson Andrade said, "Doka has provided solutions and formwork systems that meet directly with the needs of the site. In providing a flexible and adaptable combination, the overall solution really helped our team reach its goals in terms of productivity. The formwork instructor was particularly helpful for us and aided in solving a lot of problems when it came to utilisation, assembly and disassembly of the systems. It was clear to see that the training provided for the local workers went a long way towards increasing our overall productivity on site."

Speaking on behalf of Doka, Sales Manager Vitor Aguiar said, "The client was happy with our overall approach, as well as the products and systems used. As a symbol of a new era for the country, they were particularly pleased with the fair-faced finish and how it looks. Now known as the "Stadium of Peace", we hope it will serve the country well in the years ahead." ■





Building the beach life in Ghazala Bay

As part of Egypt's ongoing developments that are transforming its northern coastline into a series of luxury resorts and destinations, Doka Egypt has been playing a key role in constructing Seashell Playa North Coast, the epitome of what Egypt's cosmopolitan beach life will have to offer.

Located just over a hundred kilometers to the west of Alexandria and approximately three hundred kilometers to the northwest of Cairo lies the pristine shores of Ghazala Bay; a picture-perfect paradise nestled on the lapping shores of the azure Mediterranean Sea and soon, the location for Seashell Playa North Coast, one of the country's up and coming resorts designed to attract both investors and holiday makers from across Egypt and beyond.

Comprising both villas and apartments, the finished resort will offer a wide variety of amenities including a club house, gym, shopping stores, swimming pools, cafes, restaurants and a broad range of family activities.

Working with Rowad Modern Engineering and G-Investment Engineering Joint Venture and its dedicated Project Manager, Wael El Ragaby, Doka Egypt's team consisted of Mohamed Samaha, Sales Manager, Mostafa Mahmoud, Project Engineer and Badr Abdelfattah, Formwork Instructor. Having successfully completed two projects with Rowad Modern Engineering, Doka's team was already well versed with the contractor's approach, and its familiarity with Doka's products and systems.

With construction getting underway in May 2021, the combination of 3,500m² of Dokaflex with H20 top P Beams made an immediate impact to the speed and agility of the project.

"Thanks to the flexibility and prop range of Dokaflex, Doka beam H20 top P and Floor prop Eurex Eco 20 300 we will be able to use the same combination throughout the majority of the project, including using the beams as wall formwork. Thanks to the durability of the H20 beams, plus the superiority of Dokaflex over cuplock at low heights, as well as the easy access to inventory we were able to make great progress from the get-go," commented Wael El Ragaby. "There had been some concerns over receiving stock, however thanks to Doka Egypt's existing reserve, material arrived either on time or before being required, which helped to keep the project on schedule."

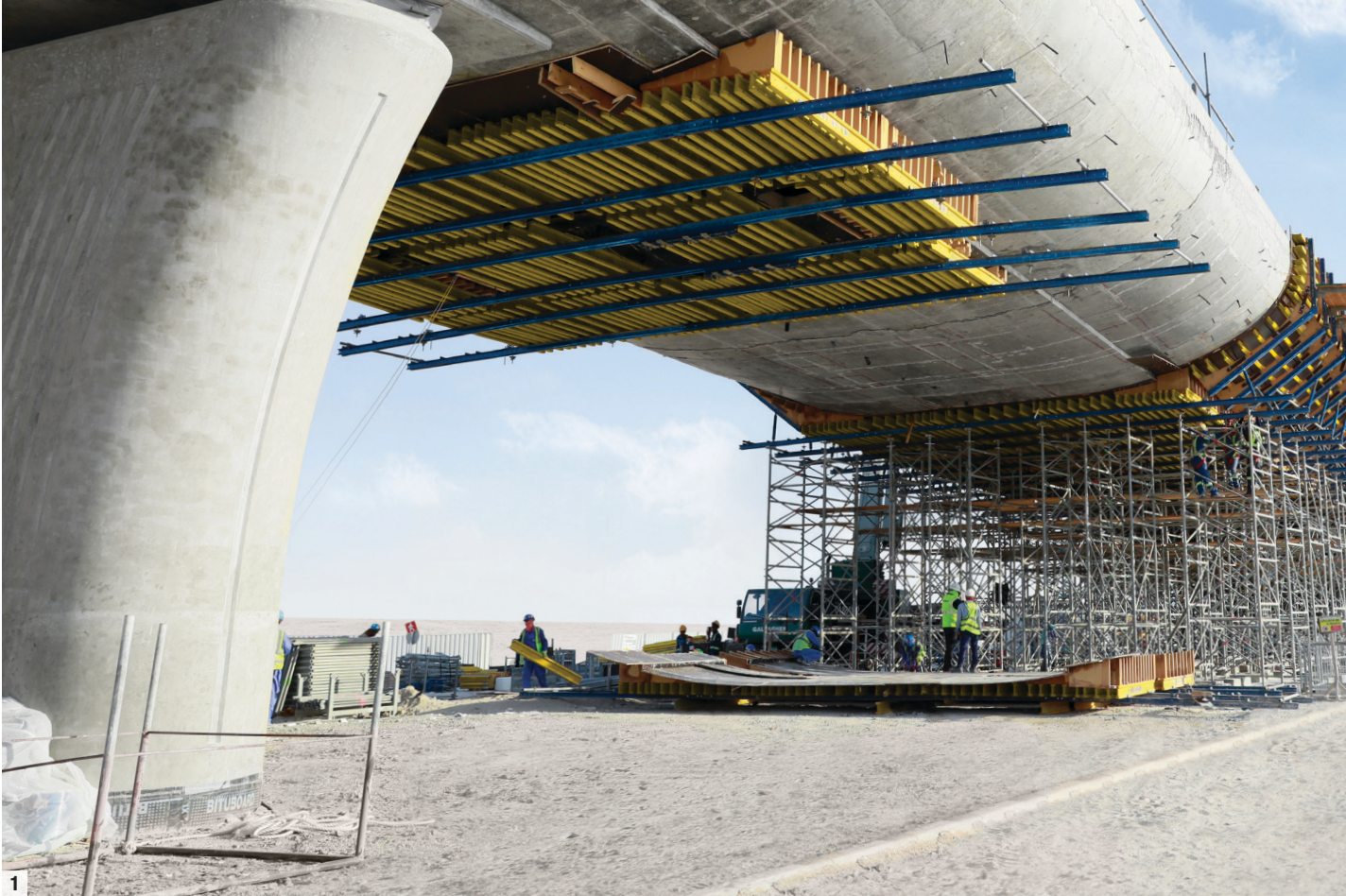
As part of the learning curve, Doka's team, led by Formwork Instructor Badr Abdelfattah completed a series of trainings for site engineers and formwork instructors over a three-week period while remaining present for the erecting and pouring of the first slab ■

- 1 3,500m² of Dokaflex with H20 top P Beams have helped to keep the project on schedule
- 2 At just 300kms from Egypt's capital, Seashell Playa North Coast will be a highly popular resort with locals and tourists alike.



As part of our delivery process on the project, I spent three weeks training site teams how to use our formwork systems both safely and effectively, thereby helping to ensure the project could proceed without any issues.

Badr Abdelfattah,
Formwork Instructor, Doka Egypt



Innovation in infrastructure

Doka's industry-leading services for the construction industry span a wide range of applications, ranging from digital innovation to on-site instructors, and it is thanks to these services that clients are able to remain focused on the creation of world-class infrastructure projects.

From large-area formwork to column and façade systems, Doka's solutions cover every element of the process, including innovative solutions such as our circular formwork H20, which allows for exact curves where the radius of the formwork can be scaled down to a minimum radius of just 3.50 meters, supporting fast and cost-effective work.

When it comes to slab work, Doka's floor forms are adaptable and versatile enough to be used for both large, complex areas and smaller sites. From innovative beam-less handset approaches, high-speed table forms and shifting devices for tables, each and every application

makes use of Doka's tried and tested props, beams, and components.

Where saving space on site and time is concerned, Doka's modular climbing formworks such as Xclimb 60, Platform SCP and Automatic SKE plus have been used on some of the world's most challenging high-rise projects and offer an incredible degree of flexibility.

In recent years, Doka has expanded its focus of expertise towards bridge and tunnel projects, where its high-load bearing systems offer flexibility and outstanding cost-efficiency while remaining squarely focused on safety. By offering the right solution for every situation, Doka's high-capacity shoring systems for civil-engineering works, highly adaptable forming carriages for bridge-building and cost-saving tunnel formwork have successfully delivered some of the world's most complex engineering infrastructure projects, most recently its ongoing work on the Sydney Metro.

As a key component of our civil engineering projects, our load-bearing systems have been designed for flexibility, safety and cost-efficiency such as our DokaCC tunnel system, which allows rectangular or round tunnel cross-sections to be built quickly, with fewer materials across a range of foundation types.

By focusing on creating safer working environments, Doka's solutions offer a wide range of benefits. From the innovative FreeFalcon, the mobile fall protection anchor, a system that allows for both safety and freedom of movement, to the versatile Stair Tower 250 and the Xclimb 60 protection



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screens, Doka's systems keep construction crews safe regardless of location or environment.

As a primary focal point for the construction and industrial sectors of the future, Doka's industry-leading digital solutions allow for increased productivity and precision across a wide range of applications.

From the company's expertise in BIM and its associated tools, to the DFDS 9 formwork planning software, to the specialized DokaCAD planning program, the Easy Formwork Planner and the Doka Tools App, Doka now offers a suite of software to assist clients at every stage of the process

including our Remote Instructor system, a real-time collaboration software solution using smart video-telephony to provide field support on any site for speedy resolution of problems whenever they arise.

Moving into physical hardware, DokaXact is the world's first interactive sensor-based system that allows for accurate positioning of wall formwork elements, including high-rise cores. The system also enables fast and accurate plumbing and the alignment of the formwork for automatic climbing systems through its innovative digital sensors and systems.

With Concremote, we have revolutionised the way in which concrete is accurately calibrated by monitoring the temperature and strength of the material enabling deshuttering to occur at the earliest possible opportunity.

Thanks to a range of software solutions and mobile apps, Doka's expertise is readily available to clients and the company's range of digital solutions are always close to hand. From BIM solutions that allow companies to connect, plan 3D formwork designs and simulate the construction process, to Kontakt, which allows for the scheduling of pending stages on a daily basis, to DFDS Formwork Planning that helps optimize formwork design and Doka AR which allows clients to tour a virtual representation of their site, Doka offers a comprehensive range of digital solutions that enhance every aspect of a project.

No matter the challenge, Doka's broad range of infrastructure-focused solutions will continue to support the needs of our clients and the ever-evolving nature of today's construction and industrial sectors. ■

- 1 By using an end-to-end formwork concept, Doka ensures the quality of each bridge project it works on.
- 2 Evolved from the highly successful first-generation sensor, Concremote 2.0 includes Bluetooth BLE, 2G, 3G and 4G data transmission and an IP67 certification.
- 3 Each of Doka's tunnel systems are designed for optimal performance, from metro systems to mountain highways.



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