# Dokazapress The formwork magazine Usue 01 I 2019



DokaScaff UNI A safer, faster solution 10 bauma 2019 Your guide to our 4,700m<sup>2</sup> campus 14 Diversity Embracing team culture 19



How Doka's AR-VR app is optimising construction | 17

www.doka-me.com

**The Formwork Experts.** 

# 01/2019

### Content

- 03 News in brief
- 04 Eyiste Viaduct A recordbreaking project that connects
- 05 Top marques with AI Fardan
- 06 Azuri Peninsula
- 07 The restoration of Bab Al Bahrain's historic customs house
- 08 Osama Roshdy talks industrial scaffolding
- 10 Fewer components, many advantages
- 12 Doka showcases DokaScaff UNI through regional road shows
- $13 \begin{array}{c} \text{Doka creates added value} \\ \text{with BIM} \end{array}$
- 14 bauma 2019
- 18 The next generation
- **1 G** Strength in diversity









Welcome to our inaugural, digital Doka Xpress.



# To our clients and colleagues,

It is a great pleasure to write my inaugural introduction for this Doka Xpress and to share some of the highlights from our region over the past twelve months with you.

One of the most significant milestones of 2018 was the 150<sup>th</sup> anniversary of the Umdasch Group and with it an extensive amount of celebration across our region from Doka Nigeria's visit to the Lekki Conservation Centre to Doka Kuwait's 'Dokalympics'.

There are simply too many events and activities to name them all individually, but the sheer volume of involvement from all our offices is testament to the spirit of our company that continues well into the 21<sup>st</sup> century. Other reasons to celebrate included the opening of our fully staffed office and yard in Cairo, highlighting our ongoing commitment to Egypt as a country that values safety, innovation and efficiency in its construction sector. Having provided a bespoke solution for the roof of the Grand Egyptian Museum, we look forward to increasing our operations and supporting more of the country's ambitious projects in the years to come.

In conclusion, 2018 has been a progressive year for our MEA teams and in the meantime, I cordially invite you to enjoy our first interactive edition of the Doka Xpress.

Robert Hauser Director, Doka Middle East & Africa

Imprint: Doka Xpress is a publication of the International Doka. Publisher: Doka Middle East & Africa. Layout design: COMO GmbH, Linz. 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.

### Growth in Egypt

It was with great pleasure that we formally launched **Doka Egypt for Importation and Exportation LLC** to our valued client base in early 2019. While Doka has had representation in Egypt for many years, we have now formally launched our operations which includes a yard and warehouse. We also welcomed our managing director, Mohamed Aiesh to the team. The new set-up allows Doka to be in close proximity to its clients. Currently, the team is working together with the JV-CCC-Hassan Allam on the New Alamain City project. •





### **Recognition in the Emirates**

**Doka Gulf** was recognised for its contribution towards the sustainable economic development of the UAE and took home the award for the second time in the construction category. Doka Gulf, whose formwork can be seen adorning the Dubai skyline with its distinctive yellow branding, has been a regular contributor towards many of Dubai's most recognisable buildings including the Burj Khalifa and Burj Al Arab. •

# News in brief

### Joseph Umdasch Research Prize

Once again, this year's Josef Umdasch Research Prize received a surge of interest from around the world with 157 entries from 63 countries. Of these, five finalists qualified for the pitch presentations, which were held in Portugal earlier this year as part of the World Summit Awards Congress (WSA). After much deliberation, Cupp from Canada was recognised as the winner with its AI-based chatbot, designed to provide employees with essential information both quickly and easily.

### Doka Online Shop

The Doka online shop in the UAE and Turkey 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. For queries, please contact contact-mea@doka.com. "That's one small step for man, one giant leap for mankind!", Neil Amstrong. •





**Doka AR-VR app:** This edition of the Xpress is supported by the AR-VR app, meaning you can use our free app to maximise your experience and fully unlock our interactive experience, which includes images, videos and 3D models.

### AR Marker Symbol:

Use the AR markers to find even more content. Open the AR-VP app on your smartphone or tablet device, scan the image and fully experience the latest developments of Doka MEA!





**issuu App:** Doka Xpress – 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.**  The Doka cantilever forming traveller provides certainty regarding planning and costs while ensuring an optimum construction workflow. The CFT's shoring structure and formwork are a perfect design match given its high standard of safety and optimised workplace-ergonomic design, ensuring that work can progress swiftly and safely.

# Bridging Anatolia to the Mediterranean

### When it comes to record-breaking projects,

Doka's knowledge, experience and expertise play a critical role in delivering the extraordinary with the Eyiste Viaduct being no exception.

### Facts

Project: Eyiste Viaduct

Location: Konya, Turkey

Type of structure: Bridge

Length: 1,372 m

Width: 12,5 x 2 m

Developer: Nurol Construction and Trading Co. Inc.

**Construction work by:** ATI Construction and Energy Production, Trading Co. Inc.

Architect: General Directorate of Highway

Start of construction: 2017

Scheduled completion: 2020

**Systems used:** Automatic climbing formwork Xclimb 60, Large-area formwork Top 50, Load-bearing tower d2, Cantilever Forming Traveller, Supporting Construction Frame

Services: Engineering, Formwork instructor on site

Formwork planning: Doka Turkey, Global Expertise Center Infrastructure (HQ, Amstetten)

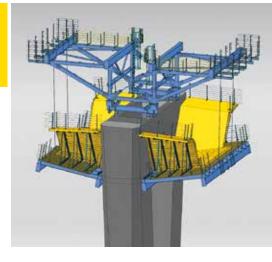
At 1,372 metres in length and carried by two abutments and eight piers, the Eyiste Viaduct will span the Göksu River near Bağbaşı District. The superstructure of the balanced cantilever bridge has nine spans, the longest of which is 170 metres. The piers vary in height from 31-155 metres. Work started in March 2017 and the structure is scheduled to be opened for traffic by June 2020. The bridge's superstructure is being constructed by the balanced cantilever method, which is ideal for long spans and has established itself as the method of choice for bridge-building projects in Turkey. A total of 130,000 m<sup>3</sup> of concrete and 28,000 metric tons of steel (excluding prestressing cables) will be used as part of the overall construction process.

### 3D model tried and tested under extreme conditions

Differing pier heights and the long deck cause differences in the way external influences affect the structure. The CSiBridge software was used to model the viaduct in 3D so that the bridge's ability to handle vertical and lateral forces could be assessed and the results incorporated into planning. The simulations indicated that the shortest pier (31 metres) would be most affected by seismic forces. The long bridge deck and the tallest pier (155 metres), by contrast, would be more susceptible to creep, shrinkage and temperature effects (CST) and to wind loads. Based on these results, only the four tallest piers are being cast monolithically with the deck sections. The deck remains supported on longitudinally sliding bearings, providing flexibility and reducing seismic effects.

#### High-performing cantilever forming travellers

The balanced cantilevering superstructure sections of the new Eyiste Viaduct are constructed towards each other from pier head to pier head. The four cantilever forming travellers (CFTs) work in pairs so that the horizontal forces acting on the bridge piers are always in equilibrium. The system climbs hydraulically and is anchored to the structure at all times by guiding shoes meaning it is possible to climb even in windy conditions.



りてしていていていていていていていていていています。

### Top marques for Doka Muscat on Ferrari-Maserati showroom

Working with AI Tasnim Enterprises, Doka Muscat shifts up a gear to deliver the AI Fardan mixed-use development in Ghala, Oman.



Our workers are happy to handle Doka products because they are designed with safety in mind.



Located in the south of the Omani capital, Ghala is an upmarket area of Muscat, which also boasts the country's oldest golf course. Working with main contractor Al Tasnim Enterprises, Doka was commissioned to provide a formwork solution for the Al Fardan mixed-use development, which upon delivery later this year will include the main concession for Italian super car margues, Ferrari and Maserati.

**Based on a flat slab** with minor drop beams, the project required a time-effective solution in order to fit in with the tight construction schedule. By using Dokaflex Table, Frami and Top 50, Doka was able to deliver a cost and time effective solution, eventually supplying one third of the typical floor slab area. In addition to the macro-benefits extended to the project, Doka's reputation for supplying safe and easy-to-use systems were also highlighted as one of the reasons Doka secured the contract.

Speaking on behalf of Al Tasnim, Operations Manager Mr Vijay Mehta said, "Once we started using Doka's formwork systems, we recognised and understood their time and cost-effective benefits. In addition to this, our workers are happy to handle Doka products, not only because they are easy to manage, but they're designed with safety in mind. It is still a misconception that premium construction brands such as Doka are more expensive; the reality is that there is longevity, safety and efficiency which all have a dollar value towards the bottom line of the project. We've been delighted with the result."

**The Al Fardan mixed-use development** is expected to be delivered before the end of Q2 2019. •



# Nigeria's new residential paradise

Located in the marina district of Eko Atlantic City in the heart of the Nigerian capital of Lagos, the Azuri Peninsula is one of the most ambitious and spectacular residential construction projects in all of Africa.

**Stemming from** the portmanteau of "zuri" (Swahili for beautiful) and "azure" (the shining blue of the sea), the Azuri Peninsula is part of a holistic plan for the Eko Atlantic City, which will see the delivery of luxury apartments, modern office spaces and large shopping centres spread over 100,000 m<sup>2</sup> of reclaimed land. The project is also acknowledged as one of the continent's biggest urban developments.

**Since December 2016,** work has been in progress on three residential high-rises named Orun Tower, Oban Tower and Zuna Tower, which in the future will house a wide variety of luxury modern apartments. The average tower height will be 140 metres, spread over 32 floors. Together, the three towers will accommodate 224 luxury apartments, twelve super-luxury complexes with two villas and ten townhouse apartments. A five-storey platform complete with parking facilities, pools, gardens and service areas interconnects the towers. Construction work is scheduled for completion by Q4 2020.

**Working closely** with the high-rise specialists at our headquarters in Amstetten, Doka Nigeria developed a practical formwork and safety concept, adapted to the tight construction schedule and severe limitations of available assembly space.

### Fast climbing and reduced crane usage

Doka's automatic climbing formwork can climb the payload along with the platforms and on this build, two units of the SKE50 plus system and one unit of the SKE50 system are helping minimise crane usage. All-hydraulic repositioning from the first pouring section upward enables craneless climbing at any time, saving manpower and time.





- Maximising efficiency: Doka's automatic climbing formwork optimises construction scheduling while providing a safer working environment for site staff.
- **2** Once complete, owners and tenants will enjoy spectacular views of the atlantic shoreline.

### Facts

Project: Azuri Peninsula

Location: Marina District, Eko Atlantic City, Lagos, Nigeria

Type of structure: Residential high-rise/ Mixed-use

Height: 140 m

Floors: 32

Developer: Eko Development Company LTD

**Construction work by:** ITB FZE – a subsidiary of ITB Nigeria Limited

Designer: Gensler

Architect: MZ Architects & Design Group Nigeria Limited

Start of construction: December 2016

Scheduled completion: Late 2020

**Systems used:** Doka automatic climbing formwork SKE50 plus, SKE50, Large Area Formwork Top 50

**Services:** Planning of the assembly and climbing steps, assembly of the automatic climbing formwork systems and platforms on site, formwork instructor service, training

Formwork planning: Doka Nigeria, Engineering (HQ Amstetten)

### The restoration of Bab Al Bahrain's historic customs house

till i

**Located in** the Bahraini capital's former central business district on Customs Square, Bab Al Bahrain is a historical building that marks the entrance to the Manama Souq.

**Thanks to an initiative** launched in collaboration between the Ministry of Transportation and Telecommunication and the Bahrain Authority for Culture and Antiquities (BACA), this Belgrave-designed gateway is set to once again play a central role as Manama's post office.

With initial plans laid out in 1936, Bab Al Bahrain literally translated as the Gateway of Bahrain, served as the country's customs house in what was once the centre of Manama. Since this time, like many of its neighbouring countries, Bahrain has expanded its national footprint through land reclamation. This culturally historic building used to be close to the lapping waters of the Arabian Gulf. It is now separated by the Bahrain Financial Harbour and King Faisal Highway.

**Working under** the Ministry of Transportation and Telecommunication with BACA, studio Anne Holtrop, the Dutch architect responsible for delivering Kuwait's Milan Expo 2015 pavillion, has been charged with overseeing the conservation and adaptation of the building to once again play an active role in the city's community.

**Working closely** alongside the other project stakeholders, Doka Bahrain was commissioned in two primary capacities. Firstly, to supply formwork components and engineering design for the wall and top slab of the mock-up and secondly the same services for the main project, which will include the external and internal walls in addition to columns and slabs. In both cases, solutions will be compatible for fair faced concrete and will be assembled and erected on site as per Doka's engineering drawings and method statements. Systems in the brief include Large-area formwork Top 50 for the walls and Load-bearing tower d3 for the top slab. At the time of writing, the mock-up has already been completed and the main project will likely be delivered in Q2 2019 •



- 1 A rendering of how the proposed renovation will add to the existing building.
- 2 Large-area formwork Top 50 in action with the project anticipated to be handed over in Q2 2019.
- **3** Exposed: The sweeping architectural design made possible by Doka's bespoke solution.



I would describe Doka and its team as talented, driven, dedicated, innovative and ambitious with excellence in formwork for any kind of structures. The innovation is great on the creative side, especially with the right



execution and checks in place with Doka doing it most perfectly.

Eng. Mohammed Ruknuddin, Project Manager, General Contracting & Trading Services Co.

### The evolution of industrial scaffolding

Interviewee: **Osama Roshdy**, CRES GCC Regional Manager, Kabbani Construction Group

### What's your company's background in the construction industry?

Our company background is in industrial services – it's related to power plants, refineries, oil and gas projects. Scaffolding is the main birth of all our activities. To do painting, fire proofing, thermal insulation or refractory you need scaffolding. Sometimes it's not in our scope, but most of the time scaffolding is involved. Effectively, scaffolding supports our main activities.

### The sophistication of scaffolding as a product has evolved significantly in recent years as the construction industry continues to embrace Industry 4.0 – as someone with many years of experience in the sector, what is your opinion on how scaffolding systems and products have evolved in the past decade?

Firstly, it's worth mentioning from an industry perspective that there's a huge gap between the scaffolding of today and the scaffolding of a few years ago. There are large improvements in the material itself. Scaffolding previously involved wooden boards and heavy material. Today, they've made the systems lighter using stronger material which is easier to install and subsequently saves time on site. It seems every year there is a new technology, new material or new erection system that makes our job as a service provider easier through using less manpower. The weight of material is lighter and stronger, so it can bear higher loads. There are also different kinds of systems, whereas before there was only one which was both heavy and time consuming. Now there are different systems which include various safety improvements as well. Today's systems are about half the weight by comparison to the systems used only a few years ago.

æ

ø

6

### Are you referring to the transition from tube and fitting to ring lock?

Yes, that's why we are here now. The clients like it because of its high safety standards and the fact that it's easy to assemble and easy to dismantle.

### What made you decide on using ring lock? A lot of companies decided that they see ring lock is a lot faster and lighter, but they still tend to stick to the old.

Most of the companies still have large stocks of the conventional systems so it's not easy. They invest a lot in this. It's not easy to change in one day. It needs some time to change from the conventional system. Also, for some projects, you need a special design for the ring lock system so this will not be possible; particularly, in the oil and gas sector. In some areas we have to use conventional scaffolding; we cannot use any others.





### **Industrial Scaffolding**

Main Components:

- Standards
- Ledgers
- Diagonal braces
- Steel decks
- Access Decks with ladder or Stairways
- Toeboards

The GCC governments and construction companies have put a lot more emphasis on innovation and its clear both the public and private sector have invested. The initial investment is big – to use such a system you need to invest big. In the end, conventional material has long life, but you have to cover the initial outlay. The new material is very different, very fast and easy to use. It eliminates all the human errors. Before, site staff had to choose the right piece, the right clamps but now you have it ready. You cannot put the wrong piece in the wrong place, so site teams have less to worry about.

### As the GCC Regional Manager for CRES, Kabbani Construction Group (KCG), you pride yourself on working at the highest level of safety on site. Could you explain how Doka's scaffolding systems support your company's ethos for safety?

For a company to become a big group and sustain the growth you have to maintain safety and quality. A company that fails in safety cannot continue for long – it will have short life. You need the two legs of safety and quality. For us, safety and quality are our main supports to continue and grow. Without these two we cannot continue, otherwise it will be a very short lived company.

You need to have a better safety standard and/or use new material to eliminate or reduce the human errors. Scaffolding is the main birth of safety. If the scaffolding is done correctly it usually indicates the site will be safely managed. One of the main potential hazards or risks on site comes from the scaffolding, from working at height. Scaffolding, if it's done in the right way will release a big part of the risk for accidents on site.

### For man power, do you hire scaffolders or do you use your own?

Our own team – we train the people at the beginning. My people are used to using different systems for many years, so it was not difficult to train them on the new systems as they are so easy to assemble. For us it was more routine. If you have a skilled team, the training can be done in a very short period of time.

#### Has your experience always been involved with scaffolding?

I've been in the construction industry for almost twenty years, so I've been using scaffolding since the start – it was and still is an essential part of our service offering.

### Is there anything you'd like to see developed in the scaffolding industry in the future?

For sure, there's always room for improvement. Everything is different nowadays and there's room for improvements in the material itself. Sometimes it's not possible to scaffold due to constraints, such as limited space, so we use another kind of access. In the future, maybe they will find solutions to these problems.

### Do you think having a universal compatibility of the various producers is important?

I think this won't happen, because each system needs to have their part of it, you cannot use parts from another manufacturer. Every company tries to do their own system to make their clients use them only. To use mixed systems, I don't think it will happen.

Doka prides itself on seeking ways to improve its products, particularly based on our customer feedback. Could you describe your experience of working with Doka scaffolding products, systems and services and why did you choose us? The system, for all the reasons I gave earlier, is fast, safe and lowers the consumption of manpower. There is no room for human error. Doka's customer service has a fast response time and scaffolding design was executed fast when required. Your engineering teams were very fast and professional in coming back to us.

### There are several competitors in the market – what makes Doka special?

There are two reasons – firstly, your team was highly responsive when we asked questions. Secondly, prices are competitive when compared to companies who provide similar systems.

 $\langle \langle$ 

A company that fails in safety cannot continue for long – it will have a short life. Osama Roshdy



# Fewer components, many advantages

**DokaScaff UNI** may have only recently entered the GCC, but it's already making a major impact on how construction companies gain maximum benefit from their scaffolding system. In this article, we hear directly from some of the individuals most familiar with the system in their own words.



### **Robert Hauser**

Before we decide what products to introduce to the market, we closely monitor the evolving needs of our clients. Once identified we then select the right products that add maximum value to their business. In this case, thanks to an increasing demand for a **safer** and more efficient scaffolding system, DokaScaff UNI was brought to the Middle East and has so far been very well received.

When it comes to why clients prefer DokaScaff UNI, the most common response is **efficiency**. When you look at the incumbent systems within the region it is either a tube and fitting or a cup lock system. When compared to DokaScaff UNI, one can clearly see that our solution is faster for erection and dismantling and provides unique safety features that the other systems do not offer. From a business point of view this means we can realize **significant labour cost savings** and **time gains**.

One of the additional benefits of the system is its **versatility** – it can be used for various applications like facade or shoring and across various industries such as oil and gas, shipbuilding or chemical plants.

We anticipate to see continued demand across our region as more construction stakeholders experience the value DokaScaff UNI has to offer, in particular in countries like Saudi Arabia, UAE, Kuwait, Oman and Turkey.



Robert Hauser Regional Director, Middle East & Africa



**Diogo Ezequiel** Scaffolding Manager MEA



### **Diogo Ezequiel**

The ring system was introduced to the construction market approximately thirty years ago and since this time very little has changed. It has been an on-going challenge to improve the safety and quality of scaffolding and certainly DokaScaff UNI has been a long awaited solution for many stakeholders.

Since it uses **fewer components** it's less manpower driven meaning reduced risk on site. Across the region we have introduced several different types of usage from construction to industry. So far the reception has been that it's really **fast to erect**, it's **safe** and provides a significant number of benefits than what contractors are used to. One of the most valuable features is that all components are light and can be handled by one person meaning a reduction in risk for site staff. Other safety accessories include perforated steel decks to avoid a slippery surface or accumulating water when it's raining or in high humidity. The decks also feature an anti-lifting device, which yield a sturdier platform and mitigate the risks generated from adverse weather. The toe boards, that are used to prevent falling objects, are made of steel to make them more durable. The predefined measures allow for easy assembly and avoid mistakes, also the harness can be fixed to several points of the system, making it safe during assembly.



### Christian Stirm

Historically, the market has been dominated by traditional scaffolding so from a sales point of view it has been quite challenging to introduce a **new system** and convince our clients, however by clearly illustrating the **system's bene-fits** we were able to win some major deals.

In scaffolding, we utilise the same approach as we do in formwork. By thoroughly understanding the requirements of the client, particularly in terms of the project duration, we offer an **optimised business case**, which can be a rental, purchase or even purchase with a buyback. It all depends on the requirements of the client and how long the client wants to keep the material on site. We offer our full engineering and on-site services along with the product.

When Doka introduced its scaffolding business to the UAE, our main target was to complement our formwork scope with scaffolding for our existing clients; however, with the reputation and expertise of Doka we were able to win projects that are not directly related to formwork, but purely for scaffolding, meaning we've been able to expand our client portfolio as a direct consequence of DokaScaff UNI. •



Christian Stirm Dubai Branch Manager





### Fasil Mohammad

For us, one of the main challenges has been **raising awareness** about DokaScaff UNI and clearly illustrating the major safety, cost and labour benefits it provides compared to traditional systems. The industry has used traditional systems for over 30 years.

In my opinion, the most beneficial feature of DokaScaff UNI is the **time saving** element. When compared to traditional scaffolding, our system saves almost fifty percent, meaning massive value for our clients. As there are **fewer components**, which are also a lot **lighter**, there is a reduced requirement for manpower and one can complete the same job in half the time. In addition to having less components, logistical and maintenance activities are reduced as well. •

### Wolfgang Berger

Thanks to its 360-degree connection rosette, assembly is both straightforward and efficient. By following the user manual parameters, the load transfer and the integrity of the system is ensured meaning less risk for human error when compared to traditional systems. As a value added benefit, we also provide clients with our 3D design software and integrated structural analysis documentation.

I believe we are in a very fortunate position in the Middle East & Africa region to bring positive change to the industry by significantly improving a highly utilised product, which has been long overdue. DokaScaff UNI represents yet another great product that will protect site staff more effectively while saving our clients money through efficiency and a reduced requirement for manpower. •

Wolfgang Berger Head of Engineering and Product Management, Middle East & Africa





# Doka showcases DokaScaff UNI through regional road shows

While it is nothing new for construction stakeholders to host their clients and showcase their latest products and systems, Doka's approach takes on an entirely different form by driving its products to client worksites through a unique and fast-paced roadshow. **In November 2018**, Doka completed an initial four-day tour as part of a promotion to bring its multidirectional ringlock scaffolding system to job sites across the region and enable contractors and site teams the opportunity to interact with the unique time-saving features and safety benefits it provides.

**Over the four-day period**, Doka's touring team was able to visit a total of eleven worksites and thanks to popular demand, added two additional dates that offered a practical workshop under the theme of 'Safety at Height'. Attendees included various contractors from across the construction, oil & gas, landscaping, shipyard and road infrastructure sectors from roles including scaffolding engineers/supervisors, HSE managers and project coordinators. At the end of the workshop each attendee received a certificate of completion.

**Speaking on behalf of** Doka Middle East & Africa, product manager, Vitor Rosa said, "The last couple of weeks have enabled us to showcase one of our most versatile products, while also providing greater awareness about safety for site teams. It's been a great experience to hear from our clients face-to-face and to gain a clearer understanding about some of the challenges they face on site. This was a highly successful roadshow, which was enjoyed by both the participating site teams and ourselves."

**Based on the success of** the initial roadshow, similar events will continue to take place across the region including Kuwait, enabling a more convenient method for construction stakeholders to experience Doka's latest products without having to leave their job sites. Stay tuned to Doka Middle East & Africa's LinkedIn account or website for further information on dates and locations.

### Doka creates added value with BIM

### **Digital technologies and systems**

are influencing the construction sector more than ever before.

### **Facts**

Project: SOFiSTiK

Location: Nuremberg, Germany

Type of structure: Office building

Number of storeys: 3

Project owner: SOFiSTiK AG

Lead contractor: WOLFF & MÜLLER Hoch- und Industriebau GmbH & Co. KG

Architects: GP Wirth Architekten

Formwork planning: Doka Competence Center VDC/BIM (HQ Amstetten), Engineering Deutsche Doka Schalungstechnik GmbH

Systems used: Timber-beam floor formwork Dokaflex, Folding platform K

Services: BIM, 4D planning

Start of construction: August 2018

**Completion:** January 2019



You can read the full article here.

Digitisation has an enormous scope and potential to boost efficiency and cost-effectiveness across the entire construction process. In this context, Building Information Modelling (BIM) is definitely one of the main factors influencing the construction industry. Doka sees this innovative approach as a key method for optimising construction processes, boosting productivity on site and designing the ideal solutions. Doka used BIM to map the formwork solutions for the SOFiSTiK office building project in Germany.

With BIM all project information, from planning through construction to the completion and maintenance of a structure, can be coordinated. The digital data for the entire life cycle are administered at a single, central location. The approach is holistic, supporting efficient interaction and an automated, transparent exchange of data between all the partners involved in constructing a building – architects, contractors, planners, formwork specialists and others. Anywhere, at any time, stakeholders can access the latest data and coordinate the project much more smoothly than is possible in the ordinary construction process.

In BIM methodology, the entire building is digitally modelled from beginning to end before construction even starts. Errors and problems are spotted in the digital twin and eliminated before they can disrupt progress on the construction site. The project rigorously follows the principle of building the structure virtually first, and afterwards in reality.

#### Ground-breaking new method

BIM breaks new ground for Doka too. This is why for some years, the company has been studying how BIM applications can help match formwork solutions even more accurately to the construction process, thus contributing significantly to its success. A Competence Center was established and a team of experts brought together to assess the possibilities and the benefits of BIM. For about two years now, more than 800 formwork components from Doka have been online in the Tekla warehouse. Revit families have featured on the Doka homepage since last November. Currently, SharePoint, BIM 360 and Trimble Connect are used for data interchange with customers.

>> To read the full article on how BIM was implemented on the SOFISTIK project in Germany, visit our QR code below.

Construction software specialist SOFiSTiK AG has commissioned a new office building in Nuremberg, Germany. The formwork solution is from Doka.



# Our passion is your productivity

**From 8 to 14 April 2019, bauma,** the world's largest construction machinery equipment trade fair will once again be opening its doors. Under the heading "Our contribution to increase productivity on the construction site", the Doka Campus will be presenting the most recent products, services and innovations from the world of formwork on a 4,700 m<sup>2</sup> booth.

The **Doka Campus** is a meeting place, oriented towards dialogue and communication with the visitors. The bauma trade show is a unique opportunity for visitors to experience Doka's contribution to productivity on site, including products, services and digital solutions.

Similarly to the last bauma event in 2016, **live product demonstrations** with the current world champions and vice world champions in concrete construction (WorldSkills 2017) will be among the special highlights this year. What is new here is that the DokaXlight formwork system will be used in this year's performance.

The two-level **Engineering Tower** of 16 metres will be a testament of Doka's engineering competence. Visitors will be able to use Virtual Reality (VR) to experience different scenarios and follow presentations focusing separately on the

highrise, infrastructure and energy sectors while our engineering experts will be available to discuss any specific questions.

In the highrise construction sector, the product innovation **DokaXact** is celebrating its world première at this year's bauma. DokaXact is a sensor-based system enabling speed and precision for surveyors and site crews setting up the wall formwork of self-climbing systems. •



and new ideas for boosting productivity on construction sites in every aspect of formwork and in-situ concreting. Harald Ziebula

V Every day, our clients are performing exceptionally. Doka assists them in this and wants to be known as a construction-industry partner who has tomorrow's solutions for boosting productivity on jobsites today. The most important features at bauma 2019 are an extended portfolio of products and services,

### Don't miss any news about Doka at bauma 2019

Chairman of the Executive Board Doka



www.doka.com/bauma Subscribe to our newsletter – just scan the QR code

### Follow us on social media:

- facebook.com/dokacom
- instagram.com/doka\_international





1 In 2019, the demonstrations of the World Skills champions will stir a great deal of enthusiasm at the Doka Campus.

2 With DokaXact, Doka offers an important component for digitizing construction site processes.

The Doka campus is an industry-leading institution to meet, network and learn.

# News from the world of Doka

doka

Safety, speed and cost-effectiveness are increasingly becoming decisive success factors in the highly competitive construction market. Doka formwork systems are optimised to deliver precisely this success. In the formwork world, Doka customers can experience this on a first hand basis in a variety of areas.



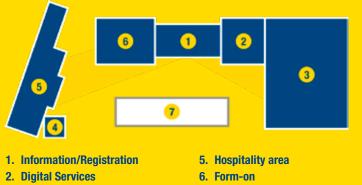
doka oka oka oka doka

ka

doke

Doka and bauma - how it all began. Let's go back in time!

### The Doka Campus at a glance



- 3. Doka formwork world
- 4. Engineering Tower
- 7. Umdasch Group Ventures

# umdaschgroup ventures

### Did you know that ...

... Doka added a new sector to its presence this year? The Umdasch Group Ventures, Doka's sister company, will present its innovative projects. The company deals with future trends and new technologies in the construction field and focuses exclusively on the development of groundbreaking potentially disruptive innovations.

# The latest digital solutions optimise construction procedures on site

**Immerse yourself** in the world of digitisation. Learn more about digital solutions and services to boost your productivity on site.

We present our range of digital services in three sections: Smart Jobsite, Smart Assistants and Smart Planning. Our main focus are digital solutions to optimise processes on site and support our clients to significantly boost productivity on site. Simplified working procedures, more transparency and better quality in execution are integral to the Digital Doka drive.

The **Doka AR-VR app** (www.doka.com/ar) enables customers to experience selected Doka solutions in augmented and virtual reality. The experiences include projecting Doka formwork virtually onto printed plans by positioning 3D models in their surroundings and taking virtual reality tours, experiencing a variety of Doka solutions.

**Concremote,** the unique digital measuring and decision-supporting system that measures concrete strength development on site and in real-time, now comes with a raft of software and hardware innovations. This includes a web portal, a FORECAST for predicting strength development and SCE-NARIO for comparing several concrete formulations. A highlight is the new Concremote App.

The software and consulting service **Contakt,** incorporates specially developed sensor technology and delivers information straight from the construction site, enabling construction processes to be optimised so that Doka projects can be completed on time and within budget. Building contractors and project owners benefit from more transparency and can optimise their workflows and competitiveness based on the data from the field.

With **VDC/BIM** (Virtual Design and Construction/Building Information Modelling) formwork solutions can be matched even more closely to the planning and construction process for any given structure, contributing significantly to the success of the project as a whole. Customers enjoy specific benefits, including the ability to access up-to-date information on the building at any time and run simulations to check construction progress, cost and safety.

**Remote Instructor** is a software solution developed specially for the construction industry to support real-time collaboration on the construction site. The system uses intelligent video calling to provide live support from any location, and increases the availability of Doka experts. Reductions in downtimes, which lead to cost savings, are additional benefits that contractors can experience whilst using this innovative software solution from Doka.

**Yard management** is a Doka offering that will enable customers to manage rented Doka material while also maintaining a full overview of their own equipment stock. With rented and owned equipment managed together, the customer will have a central platform for clear visualisation and optimised organisation.



doka AR doka My

doka

- 1 With the **Doka AR-VR app** you can get an exciting insight into the world of formwork technology.
- **3** The online portal **myDoka** has new functionalities making it even easier for customers to manage their project and jobsite data.
- **2 Concremote** offers numerous new functions with the sensor generation 2.0.
- 4 Doka's Online Shop enables customers to buy Doka products anywhere, at any time. Currently available in UAE and Turkey.

The **Online Shop** enables Doka to access the potential of digitisation in E-commerce, with customers being able to use all types of devices (PCs, tablets, smartphones) and operating systems to access the online offering and buying selected Doka products. Customers also have an up-to-date overview of products, availability and prices, in addition to recommendations for the necessary accessories and add-ons.



### The next generation

With the global employment market becoming increasingly competitive, internships provide an invaluable way for students to gain handson experience within an active business environment and gain a true taste of working life.

- 1 Safety first for Bernhard Eder and Benjamin Brunner.
- 2 Michaela Rosner visiting a construction site in Kuwait City, Kuwait
- 3 Tanvi Panhale pursued her internship while completing her Bachelor's degree.



**Over the past year,** Doka Middle East & Africa has been delighted to work with three interns, Tanvi Panhale, Benjamin Brunner and Michaela Rosner, each of whom share their experiences with us.

**Tanvi Panhale,** a recent graduate of Herriot Watt University in Dubai, completed a threemonth programme as a marketing intern where she learned from Doka MEA's regional marketing head, Stephanie Lutz. During her internship, Tanvi contributed towards a variety of tasks and activities including the marketing supply database, creating social media content, supporting the activation of a campaign for a major construction product and the 150<sup>th</sup> anniversary of the Umdasch Group.

"I've never really worked in a B2B company so it was really interesting to see how marketing works in this kind of environment. It comes with its own challenges that need to be overcome on a daily basis. I also gained a lot of people skills, as it's an important aspect of working life. At first I found working in the construction industry a bit daunting because its out of my scope, but after my first day it all started to melt away. I think the main reason for that is because everyone here is so friendly, welcoming and very supportive of a new face around the office." Tanvi Panhale currently works for Doka UK as Sales and Marketing Coordinator.

Hailing from Doka's headquarters in Amstetten, Austria, 18-year-old **Benjamin Brunner** was in the middle of his third year IT apprenticeship when he was given the opportunity to travel to Dubai as part of the company's mobility experience exchange.

Commenting on his time in the UAE, Benjamin said, "As someone with an active social life in Austria, I'm always keen to meet new people and try new experiences, so when I was offered the opportunity to work from Doka Middle East & Africa's offices for two weeks as part of a mobility experience exchange, I jumped at the chance. I was initially a little apprehensive about leaving my community but was equally excited about seeing Dubai for the first time. Working alongside Bernhard Eder and Ferhat Ciftci, I enjoyed getting to know my colleagues who were kind enough to show me the ropes and integrate me as an active part of the company."

### As a seasoned traveler, **Michaela Rosner** who had already lived in countries including South Africa and the Czech Republic was no stranger to new environments and started her internship with Doka Kuwait's sales team. Having gone through specialized training in order to familiarize herself with the various digital tools used in the sales department, in particular the CRM system, Michaela was able to take full advantage of her time in-country and all it had to offer.

Michaela Rosner currently works for Doka Kuwait as the HR & Marketing Coordinator. •



# Strength in diversity

**In recognition of** H.H Sheikh Khalifa bin Zayed declaring 2019 as the Year of Tolerance, Doka Middle East & Africa decided to take a closer look at how understanding and respecting our differences have enabled us to achieve the extraordinary.

- 1 Ahmed Medhat, Egyptian
- 2 Jaleel Najah, Indian
- 3 Ahkim Makmun, Filipino
- 4 Enrique Fuentes, Spanish



When working alongside your colleagues

**on** a day-to-day basis, you can quickly become oblivious to the far-reaching diversity that operates in one team. For the most part, we communicate in a common language and we have the commonality of being foreigners in another country. We also have overarching business goals that require us to pull in the same direction. In order to achieve our goal, we must take a closer look at our cultural differences and realise that diversity is what gives us our true strength when united.

**Comprised of** more than 750 individuals, 45 nationalities, men and women, young and experienced, our video shoot was an opportunity for us to truly see how our diversity in the region has enabled us to break records and push limits.

# Women in construction

3

### Women are still underrepresented

in the construction industry. In universities, engineering students are primarily men. The ratio of men to women is disproportionate in most post-secondary education classrooms.

**To celebrate** International Women's Day 2019, three Doka employees open up about their professional experience and shed light on the construction industry with its variety of career opportunities for women.

At Doka Middle East & Africa, women are an integral part of the business and have contributed significantly to the company's success. You can view our interview series 'Women in Construction' on the Doka Middle East & Africa YouTube channel.

# **DokaScaff UNI**

DokaScaff UNI is a multidirectional ring scaffold system consisting of tubular elements that provide an effective and secure way of performing the most demanding scaffolding challenges.





doke

www.doka-me.com | contact-mea@doka.com

facebook.com/DokaMEA

You Tube Doka Middle East & Africa

www.linkedin.com/company/doka-middle-east-africa

### **The Formwork Experts.**