

DokaXpress

The formwork and scaffolding magazine Issue 2022

doka

Bridging the
Himalayas with an
engineering marvel 8 | 9

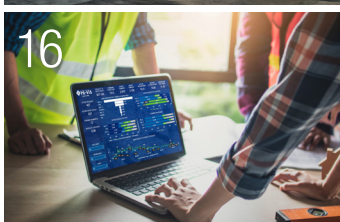
The rise of
scaffolding
sophistication 14 | 15

A new era
of digital
management 16 | 17



Content

- 03 News flash
- 04 Formwork solutions for modern day Malaysia
- 05 Built on success
- 06 High rise in demand
- 07 A partnership for new heights
- 08 Bridging the Himalayas with an Engineering Marvel
- 10 High quality for cost-efficient housing
- 12 A system for all stakeholders
- 14 Eastern promise for scaffolding sophistication
- 16 A new era of digital management
- 18 Doka @ Expo2020



To our
clients and
colleagues,



It is with great pleasure to welcome you to the latest edition of our Doka Xpress. We would like to share some of the key highlights and happenings of the past twelve months on East Asia Pacific, as well as what we can expect from the year ahead.

Where live events and panels had been standard for our industry, Doka seamlessly transitioned to virtual events where it was able to continue to educate and inspire new audiences, particularly through its participation in InfraBuild APAC and through guest lectures at the Indonesian University.

By merging old with new, Doka's work on several key projects in Kuala Lumpur, such as the Duta Park Residences and the Imperial Lexis and have helped to shape a new skyline for the Malay capital, particularly by utilising its timesaving, easy-to-manage products and systems.

In partnership with Lubeca, Doka completed work on several major high-rises across Australia including Panorama Box Hill, 611 Elizabeth St and 140 Lonsdale Street, while Doka India's engineering expertise were put to the test in delivering a single-pylon solution for a vital section of railway that will soon traverse the Himalayas.

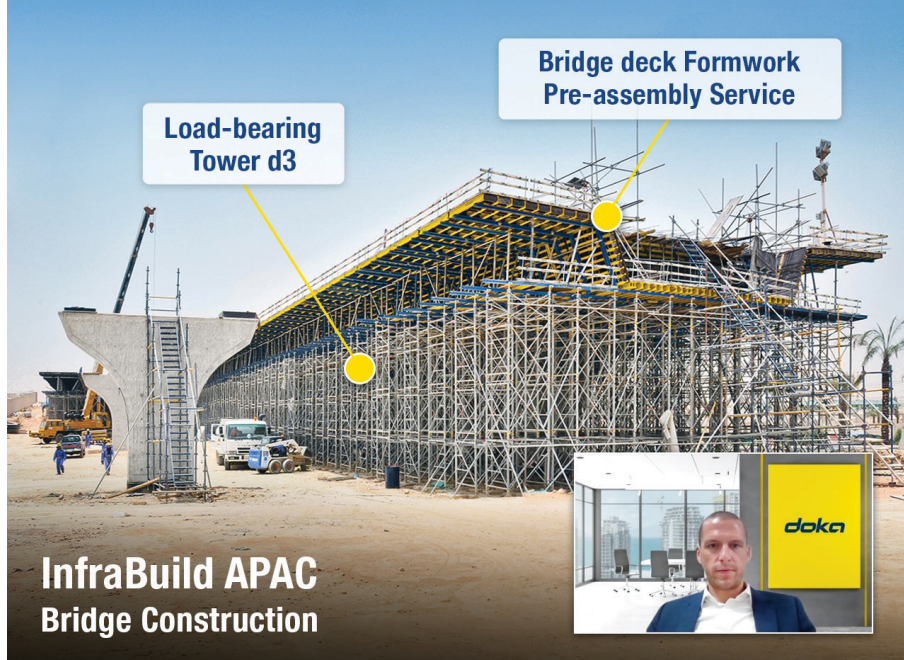
Certainly, 2021 presented its fair share of challenges, however with both the global construction and industrial markets continuing to rebound to pre-pandemic levels, coupled with an increasing appetite for more innovative, cost-effective, high-quality solutions, Doka is well positioned to continue its growth throughout the region, while remaining an ambassador for sectorial digitization.

On behalf of Doka, I take this opportunity to thank you for your invaluable support and look forward to your continued support in coming years.

Sincerely,

Stefan Schedel

Director Region, Asia Pacific Region
Doka Group



InfraBuild APAC Bridge Construction

Doka's participation at #InfraBuild APAC event, included a case study of its tunnelling civil works on the Sydney Metro

InfraBuild APAC

In line with the ongoing restrictions related to the COVID-19 pandemic, Doka remotely attended the fifth session of this year's virtual InfraBuild APAC event, which featured a presentation on 'Best Practices in Construction' and how our formwork,

scaffolding and expanding range of digital services are supporting a safer, faster and more cost effective industry. With more than 600 attendees from across the APAC region, Doka's session included a presentation by Head of Sales Middle East Africa & Asia, Christian Stirm, who presented Doka's work on the Sydney Metro as a case study for its highly efficient tunnelling civil works and timely delivery. ■



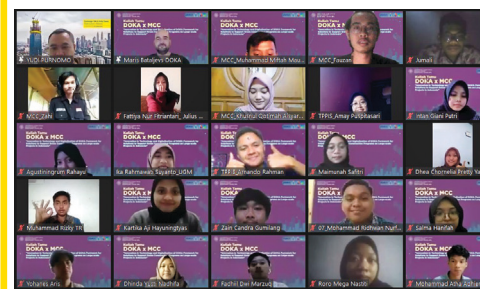
Doka PH 3rd year Anniversary

Doka Philippines had plenty of reasons to celebrate, combining its end-of-year party with its 3rd Anniversary. A big thank you to our team who've shown extraordinary dedication and hard work despite of the challenging environment. We look forward to another year of great achievement in 2022. ■

Doka Philippines celebrate the end of a challenging, but successful year.

News flash

Informing tomorrow's industry stakeholders



Indonesian University Doka lecture

Doka's team remotely addressed students at Gadjah Mada University Yogyakarta, Indonesia on the topic of "Technology Innovation of Formwork to Support Green Construction Program."

Doka was delighted to accept an invitation from the Gadjah Mada University Yogyakarta, Indonesia to feature as a guest speaker on the subject of 'Technology Innovation of Formwork to Support Green Construction Program.' Attended by a full class of engineering students, the lecture included a Q&A session that allowed students to ask questions about Doka's latest technology and the role of its R&D department in creating a more sustainable built environment. ■



PROJECT

Centrally located in the Malaysian capital of Kuala Lumpur, Doka's formwork solution provided many time saving solutions for this up and coming residential development.

Formwork solutions for modern-day Malaysia

Well-established as one of south-east Asia's most stylish capitals, Kuala Lumpur has successfully merged old with new, while retaining its lush green spaces and lakes to retain a true sense of refined urban living.

Centrally located on Jalan Kuching, Fajarbaru Builder awarded Doka Formwork Malaysia Sdn Bhd as formwork supplier to deliver one of Kuala Lumpur's most exciting up and coming residential developments, the Duta Park Residences. Neighbouring the popular Bukit Tunku district, occupants will enjoy far reaching views over the city, including the iconic Petronas Towers, while gaining access to an abundance of lifestyle amenities including gymnasiums, spas, lap pools and serenity lounges.

With the scope of work including two blocks of residences, work commenced in Q1 2020 and is currently on course to be delivered next year, thanks to a variety of Doka's time and cost saving products. In addition to the client's request for a fair-faced concrete finish, Doka also needed to provide a lightweight, minimal-component solution that could be comfortably managed by site teams. As one of Doka's most popular slab formwork solutions in the region, Doka Lightdek became the obvious choice thanks to its combined advantages of weight, durability, and cost efficiency. In addition, it's standard panel size of 1.2m x 1.8m

meant it could easily be handled by site teams, while avoiding the use of either ladders or cranes, thereby keeping costs to a minimum.

While Doka Lightdek ensured that progress remained consistent on site, Doka Malaysia's back office remained in close contact with the client to make sure that each aspect of the project remained on course. This included providing training from members of the formwork demonstration team while ensuring that all products and systems were being used safely and correctly throughout the process.

Speaking on behalf of Doka Malaysia, Craig Cerff, managing director commented, "In spite of the prevailing challenges of the past year, I'm very proud of the collaborative effort that's been made by all parties on this project. The client is particularly pleased with both our practical approach and ongoing site support, which has helped to yield the type of quality they are looking for, while ensuring site teams have been able to work safely and efficiently from start to finish. I look forward to seeing the finished project in 2022." ■



In spite of the prevailing challenges of the past year, I'm very proud of the collaborative effort that's been made by all parties on this project.



Craig Cerff
Managing Director, Doka Malaysia

Built on success

Positioned in the luxurious surroundings of the KLCC, the Imperial Lexis will add yet another five-star destination to the Malay capital upon its anticipated completion in mid-2022.

Situated in what was a historically affluent suburb to the north of the old Kuala Lumpur town, the Kuala Lumpur City Centre (KLCC), was developed to be a city within a city. Located on a 100-acre site, on the former plot of the Selangor Turf Club, which has since been relocated to Serdang, the KLCC today is perhaps most famous for the Petronas Towers, the world's tallest twin towers and an architectural tribute to the Qutb Minar, a nod to the country's Islamic cultural heritage.

As the heart of the capital, the KLCC is also home to several five-star hotels including the Mandarin Oriental, Traders and Shangri-La, and will soon be joined by the Imperial Lexis, a five-star, 49-storey hospitality tower, which is anticipated to be completed by midway through 2022.

Under development by China State Construction Engineering, Doka Malaysia secured the complete formwork package, making it the fifth major project the two companies have collaborated on, having fended off various competitors. Breaking ground in July 2019, the project had a tight schedule with initial planning requiring the structural work to be completed within 23 months. Additionally, with its contemporary design, the slab formwork and external protection screen design had to encompass a series of tiered swimming pools, integrated between levels 14 – 35. Fortunately, Doka found solutions to each, starting with the core. By using its hydraulic climbing formwork Xclimb 60, Doka made fast progress on the core wall formwork, while mitigating crane usage and providing additional safety through closed shuttering and integral ladders and manholes – a particularly important aspect considering the busy location of the project. To make faster progress on the slab, Doka provided Doka Lightdek, a light and easy-to-handle product which featured quick release prop heads for rapid and safe dismantling. Additionally, thanks to the product's high durability

and quality, it was also capable of handling the double volume slab necessary for the swimming pools.

Speaking on behalf of Doka Malaysia, T-Y Wan (Senior Business Development Manager), said, "Doka Lightdek was a highly useful product to have on this project. Not only did it enable site teams to make fast progress without suffering fatigue, its high-performance meant it could fulfil the project's formwork requirements with ease. As an aluminium-based product, it provided an excellent finish and showed impressive durability with more than 400-re-uses."

Aside from the high-quality, EN-compliant products and systems, the client was also highly satisfied with the level of on-site support, particularly through Doka's Mandarin-speaking, senior formwork instructor, Mr. Chia, who spent three months on-site ensuring site teams were trained correctly.

Thanks to Doka's ability to deliver on time and on budget, the full scope of works was completed with the project remaining on target to be delivered on time. ■



As an aluminium-based product, Doka Lightdek provided an excellent finish and showed impressive durability with more than 400-re-uses.

T-Y Wan
(Senior Business Development Manager), Doka Malaysia



High rise in demand

Since joining Doka, Lubeca's high-performing, self-climbing solutions for high-rise have proven to be a sought-after as Melbourne's skyline continues to bloom.

Long before Lubeca became a highly valued subsidiary of Doka, the two companies had worked as partners on several high-rise projects around the world with stellar results. Since this time, the two businesses gained the opportunity to provide a "one stop shop" solution that added significant value, particularly for main contractors seeking a strong and reliable provider for delivering high-rise projects both quickly and safely and while the pandemic may have placed a dampener on the wider construction industry, Melbourne's superstructures have continued to go up at record speed thanks to the unwavering support of Lubeca and Doka Australia.

Starting with Panorama Box Hill, a residential high-rise comprising thirty storeys and four basement levels with a tight and immovable delivery timetable. By working in close coordination with contractor, Maxcon and Structures contractor, I&D, Lubeca provided Lubeca Jumpform in combination with 3.3-metre, Top 50 wallforms, with all components preassembled to accelerate site installation. As a result, the structure was successfully handed over to the client in May 2021.

Working in the same timeframe as Panorama Box Hill, another Lubeca team was assigned to 611 Elizabeth Street project alongside ProBuild Pty Ltd and I&D on the 3B+G+18 commercial high-rise. With a large core, Lubeca provided a dual solution that leveraged the Lubeca Jumpform in combination with 4.7-metre Top 50 wallforms to provide an optimised solution with the large core being split into two systems resulting in a split cycle and climb to maximise labour utilization. Again, with all elements preassembled and an access bridge installed between the system for ease of access, the project was comfortably delivered within the allotted time frame.

The last in the trio of towers was 140 Lonsdale Street, a commercial high-rise in Melbourne and soon to be home to the Federal Police. Equipped with four basements and twenty-three storeys, Lubeca Jumpform, in combination with 3.9-metre Top 50 wallforms meant a fast cycle time resulting in the structure being completed and handed over in just under a year.

Speaking on behalf of the three projects, Lubeca's managing director, Adam Halliburton commented, "While some supply chains have been adversely affected by the pandemic, active construction demand has remained intact, with even more emphasis being placed on delivering projects to make them fully operational at the earliest opportunity. With each of the three towers, our ability to think on our feet and provide a versatile solution that supported other works to occur either simultaneously or with minimal disruption has been a serious value add for our clients and for our fellow construction stakeholders. Lubeca's Jumpform has been a major part of that efficiency and certainly our combined efforts have yielded the best possible outcome for each of the projects." ■



Our ability to think on our feet and provide a versatile solution that supported other works to occur either simultaneously or with minimal disruption has been a serious value add for our clients and construction stakeholders.

Adam Halliburton, Managing Director, Lubeca



Thanks to highly efficient coordination between stakeholders, Panorama Box Hill was successfully handed over to the client on time and on budget.

A partnership for new heights

After identifying the extensive benefits of working together, Doka and Lubeca's partnership has grown to become a formula for success the world over.

Hailing from very different parts of the world, Lubeca and Doka have more in common than you might first think. Outside of the obvious connection of formwork, both companies have consistently ensured their products and services not only uphold the highest international standards in construction, but also provide valuable, time and cost-saving solutions for their clients.

Launched in Melbourne, Australia, Lubeca's self-climbing formwork solution, Jumpform, was launched to offer a high-performance solution when it first came to the market, albeit it has now evolved somewhat since its debut in order to keep up with Australian building standards. Specifically designed to offer exceptional productivity on mid to high-rise projects, its fully hydraulic system has allowed contractors to move continuously from floor-to-floor, while taking advantage of Jumpform's fast repositioning for over twenty-five years.

Meanwhile, some sixteen thousand kilometres away in Austria, with its heritage of over 150 years, Doka had been expanding its operations to become a major player in the global market. Equipped with a broad range of formwork products and systems, a highly experienced in-house team of more than 7,400, and a presence in seventy countries around the world, Doka and Lubeca quickly saw the mutually beneficial potential of combining resources and in doing so, extend an even stronger value proposition to their clients.

Speaking on behalf of Lubeca, managing director, Adam Halliburton said, "For us, Doka Australia represented an excellent opportunity to combine our strengths and offer a turnkey service for main contractors that needed an all-in-one solution for their high-rise projects, something that has now grown beyond Australia and into the international markets."

Since its initial collaboration, the partnership has worked on projects around the world including the Etihad Towers in Abu Dhabi, World One and World Crest in Mumbai and most famously, the Aurora Building in Melbourne, which currently stands as Australia's third tallest building.

Commenting on the project's success, Carl Smith, managing director, Doka Australia said, "The solution provided on the Aurora Tower worked perfectly. In combining Jumpform and Xbright Screens to work simultaneously, we were able to provide a faster



Carl Smith, Managing Director, Doka Australia (Left) and Adam Halliburton, Managing Director, Lubeca Pty Ltd following the signing of an agreement between the two companies to better service the APAC market.

and superior solution for the main contractor, Probuild. The work was so successful that Probuild management still to this day continue to promote the solution we provided within the industry."

When asked about the partnership's opportunity for growth in the Australian market, Carl commented, "Geographically, I see the opportunity in New South Wales, where Doka is very strong and the Lubeca market share is just starting to grow. Over the past four years, Jumpform business has been secured with major builders such as Lend Lease and Multiplex, so this is certainly an area where we see an opportunity for further growth."

With neither Doka nor Lubeca wanting to limit their target market to just the large prestigious projects, their ability to tailor solutions to the exacting requirements of the client will continue to serve as their greatest strength, particularly when appealing to more creatively designed projects. When asked about the success of the companies' collaboration so far, Carl said, "I believe that the partnership is only just finding its way and has a lot of potential for a larger market share in the future. Thanks to our complementary skill sets and resources, our 'One Stop Shop' approach is very appealing to major builders that are looking for a strong and reliable provider that can deliver on all aspects, ranging from core solutions to edge protection and anything in between. In the case of Doka, the backing and strength provided by its 150-year history and position as a global leader is invaluable." ■



PROJECT



« The success of the project so far has been achieved through a combination of technology and engineering excellence.

A.N. Singh
Senior Formwork Instructor, Doka India

»

Bridging the Himalayas with an Engineering Marvel

Set against the dramatic scenery of India's north-western region, works are underway to deliver a vital section of the Jammu-Udhampur-Srinagar-Baramulla railway link, however, with heavy seasonal storms and rough terrain, Doka India's team had their work cut out for them in providing a timely solution for India's first cable stay rail bridge.

Located between the states of Jammu and Kashmir in the foothills of the Himalayas, the Katra-Qazigund section of the Jammu-Udhampur-Srinagar-Baramulla railway link has a history going back to 1994. Having been initially approved for construction and with several years of work invested into its numerous bridges and tunnels, progress slowed as engineers faced increasing challenges from both adverse geology and poor accessibility. Amongst the project's greatest challenges came from finding an engineering solution to connect the Katra and Reasi section of the line, which is separated by a naturally occurring ravine of

approximately 330 metres in depth. In addition, once completed, the structure would need to withstand a variety of severe weather including torrential rain, snow, ice, and high winds, capable of reaching speeds in excess of 100 kilometres per hour.

Named the Anjikhad Railway Bridge, Doka India proposed an effective and efficient formwork solution for the cable-stayed, single-pylon to work with the site's complex geology. This meant constructing the pylon in a vertical slope using micropiles of forty metres in depth around the circumference of a twenty-metre well foundation. To achieve the construction of the pylon itself, Doka relied on its Automatic Climbing Formwork SKE50, which provided excellent protection for site teams, while safeguarding them from the adverse weather and thanks to the guided lifting system, no deviation from the construction schedule was required. Supporting the climbing system, the project used Large Area Formwork Top 50 extensively, thanks to its high degree of flexibility which meant a lot of it could be pre-assembled, while also remaining on the platforms during climbing, reducing the reliance on cranes, resulting in the project becoming crane-independent after the first step.

Additional features that helped to move the pylon construction along included jump shuttering and a pump concreting system, which not only provided higher safety for site teams, but also reduced the overall construction time by nearly 30%.

Speaking on behalf of Doka India, senior formwork instructor, A.N Singh commented, "The success of the project so far has been achieved through a combination of technology and engineering excellence. In finding an optimal way to deliver such a complicated structure in such an inhospitable environment, we are proud to say we've delivered India's first cable-stayed railway bridge."

Standing at an incline of seven degrees and at a height of 331 metres, works are currently taking place to complete the bridge, which will reach a length 290 metres across the main span (473.25 metres in total) and require 96 support cables to hold it securely in place. Once completed, the bridge will also come equipped with a monitoring system, which will help to provide valuable data as to how the geological and meteorological conditions affect the overall structure. ■



- 1 Doka India proposed an effective and efficient formwork solution for the cable-stayed, single-pylon to work with the site's complex geology.
- 2 A feat of engineering: Doka's engineers found a solution for this isolated section of railway, which covers a span of 473.25 metres over inhospitable terrain.

High-quality for cost-efficient housing

In support of providing high-quality housing, Doka Philippines has been a key component of the Bagumbong Residences, where phase one is well underway.



Donato Batle, Formwork Instructor, Doka Philippines

By sticking to the schedule, we supplied four buildings with 28 sets of columns and 8 sets of slab shoring with a target of pouring seven days per slab.

Located on the northern periphery of the Philippine capital of Manila, the suburb of Bagumbong is in the process of being developed to provide cost-efficient, high-quality housing thanks to the National Housing Authority's government-led initiative that will eventually spread across the country. Having started in September 2020, phase one of the Bagumbong Residences is now nearing completion under main contractor Rotaflex Construction and Development Corporation, where the eight, five-storey, low rise residential buildings are beginning to take shape.

Speaking on behalf of Doka Philippines, Formwork Instructor Donato Batle [VED1] commented, "Through our use of Dokaflex for the beams and slab, and Framini for the columns, we've made fast progress. By sticking to the schedule, we supplied four buildings with 28 sets of columns and 8 sets of slab shoring [VED2] with a target of pouring seven days per slab. Thanks to this approach, the structural work for each building took just two and a half months each."

In utilising both a mobile and tower crane for concrete pouring and lifting respectively, site teams were further kept to a minimum thanks to the solutions provided by the Doka team.

Speaking on behalf of the main contractor, Eng. Andrew Moral commented, "Thanks to Doka's easy-to-handle, light-weight products, we only required thirty workers per building, making the project far easier to manage than first anticipated. In



addition, Doka's formwork systems are very flexible in terms of application, something that greatly contributed towards us achieving a seven-day cycle. Its formwork instructors and detailed engineering drawings prior to deliveries also meant that teaching and accommodating new workers on how to use the systems was a lot easier."

With the success of phase one almost complete, Doka Philippines looks forward to continuing its support of this highly worthwhile initiative and working with the Rotaflex team on similar projects in the future. ■

3



1 2



- 1 Dokaflex was used for the beams and slab, and Framini for the columns.
- 2 28 sets of columns were required for the development of the project.
- 3 From left to right: Illo Roque, Doka Sales, Eng. Andrew Moral, Project Manager, Rotaflex Construction and Development Corporation and Donato Batle, Doka Formwork Instructor.
- 4 Doka Floor prop Eco 15 supports 15kN load capacity in trials to US Standards (ANSI).

4



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





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.

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



2

- 1 Ready-to-use: Ringlock stockpiled and ready for distribution.
- 2 Ringlock has proven to be up to 50% faster to assemble when compared to traditional scaffolding.

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. ■

Eastern promise for scaffolding sophistication

With extensive experience across the British, African, and Middle Eastern scaffolding markets, Stuart Whittam's relocation to Kuala Lumpur in 2021 as Doka's East Asia Pacific Business Development Manager enabled him to apply his industry knowledge to a changing market where demand for increasingly sophisticated products and systems are on the rise.

As a region that covers a significant portion of the globe, it goes without saying that scaffolding and construction standards vary from some of the world's most sophisticated metropolitan centres such as Tokyo's Shibuya and Harajuku districts, through to the deepest parts of rural Sumatra. As a central location for the East Asia Pacific region, Stuart Whittam's transfer to Kuala Lumpur not only meant a strategic capital from which to access the wider market, but also a country that represents the diversity of the region in its own infrastructure, which varies from the record-breaking Petronas Towers through to the emerging, agricultural communities of Kuching and Miri in northern Borneo. Commenting on how the market has changed in recent years, Stuart shared some of his thoughts about the region and where there is a growing opportunity for more advanced solutions.

"The scaffolding market has come a long way in the past 20 years with both industry and employee safety becoming one of the biggest focuses. Scaffolding has evolved from bamboo to more sophisticated systems that encourage safety and industry best-practice. All over the world, safety has become a greater concern, which means the development of safer systems has become a priority. With heat and exhaustion remaining one of the primary regional challenges, particularly in Southeast Asia, Ringlock's fewer components, which are also 30% lighter and 50% easier to install mean greater productivity on site with less chance of fatigue, which is a win for both contractors and site teams.

From a high-level, there is a clear demand for Ringlock, however it remains a question of affordability. I know of several companies that are sitting on hundreds of tonnes of material, so often it's a question of justifying the capital outlay, despite the clear overall benefits which are increasingly understood."

Fortunately for Doka, for those companies who are in the market to upgrade or invest, its Ringlock system has a competitive price point when benchmarked against similar systems in terms of the upfront cost, not to mention the significant reduction in labour and project duration, which help end clients understand the lifecycle benefits of the system more clearly, particularly in the energy sector.

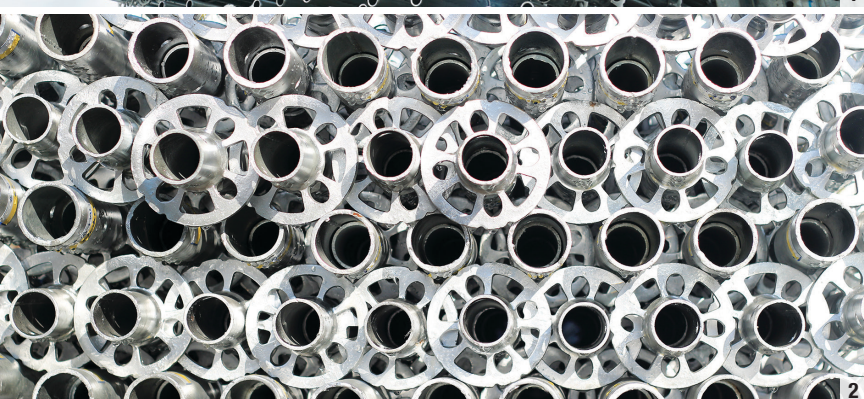
"My clients that have used the Ringlock system are always happy and immediately start seeing savings, especially on their labour costs. The project owners feel the benefit by having the





Products such as Doka's Hi-Vis® software management tool have significantly helped workflow efficiency by generating significant savings on man-hours and labour costs, which are amongst the biggest overheads for any organisation.

Stuart Whittam, Business Development Manager, Doka East Asia Pacific



- 1 Ringlock's durability and versatility have been cited as primary benefit for clients across the region.
- 2 Ringlock has proven to be an advantageous addition to Doka's inventory, particularly for stakeholders in the offshore energy sector.

project done faster, thereby making a saving on the fewer number of non-operational days. It's a win for all parties with the plant returning to operations quicker and the contractor realising significant savings on its labour costs."

In addition to cost efficiency, the region's progress is being further supported by increasingly higher standards.

"In Asia, they follow the European Standard, which works perfectly with Ringlock's EN12810 certification. This has helped Doka to position itself as a certified provider that can operate with both the oil and gas and construc-

tion markets, while the enhanced regulation keeps cheaper, and potentially less safe systems making their way onto sites."

In tandem with the global construction market, the adoption of technology has also seen a significant increase, with more project owners and contractors realising the benefits of cost efficiency, safety, and precision. As such Doka's forward thinking digital products, systems, and tools, particularly those which are compatible with Ringlock have proven to be popular on projects across the region, with Hi-Vis® standing out as an easy-to-use system that improves workflow on site.

"Technology is being embraced every day. Products such as Doka's Hi-Vis® software management tool have significantly helped workflow efficiency by generating significant savings on man-hours and labour costs, which are amongst the biggest overheads for any organisation. In today's world with the current pandemic and the difficulty in sourcing skilled labour, technology is being sought after to fill the void. From my experience, particularly in the energy sector, Ringlock, in combination with Hi-Vis® has proven to reduce shutdowns by over a week when compared to less sophisticated scaffolding system, making our proposition very attractive to stakeholders."

When asked about what role Doka can play in the wider region's development, Stuart responded, "As a company, we'd like to be the benchmark of quality within the scaffolding sector and to become a one-stop-shop for the industrial sector as a long-term partner for efficiency. ■

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.



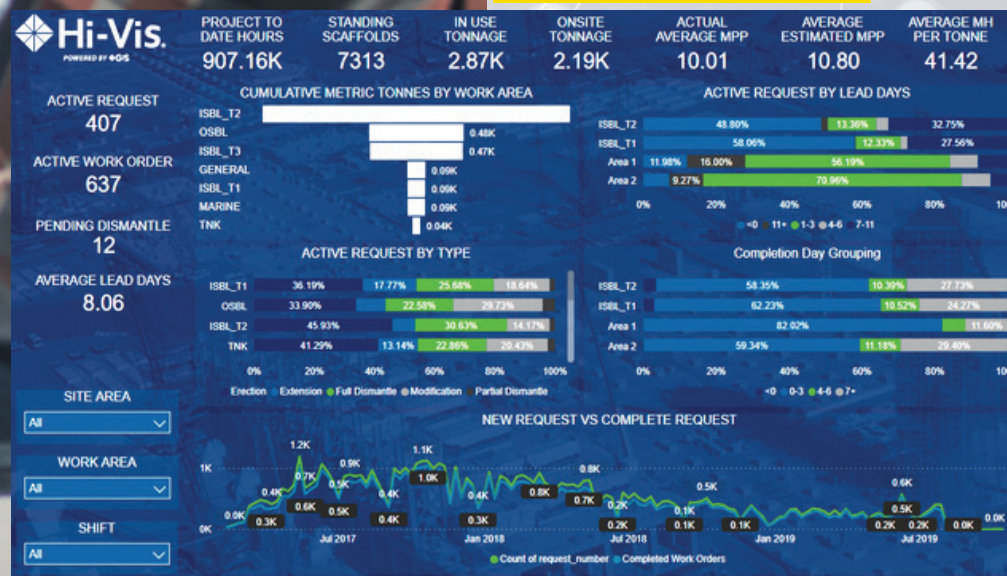
Speaking on behalf of Doka Middle East Africa and Asia, Stuart Whittam, Business Development Manager, Doka East Asia Pacific said, "By listening carefully to our own engineers and clients, Hi-Vis® was born out of a requirement to make the business of scaffolding even easier. By giving site teams the 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.



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.



doka

Ringlock

One Scaffold System.
Limitless Applications.

AT-PAC
COMPLETE SCAFFOLDING SOLUTIONS

PROVIDING

www.doka.com