SOUTHEAST·ASIA CONSTRUCTION

JULY - AUGUST 2024

Cover Story:

Danjiang Bridge, Taiwan

Features:

Construction of Cloud 11 building, Thailand

Punggol Digital District, Singapore

Rockster R700 mobile impact crusher

Zoomlion ZCC850V-1EV electric crane now in Singapore

30 YEARS

DINGLI

Exceed · New Height

Three-Year Comprehensive Warranty

Comprehensive Upgrade Fourteen Benefits

PERFORMANCE+

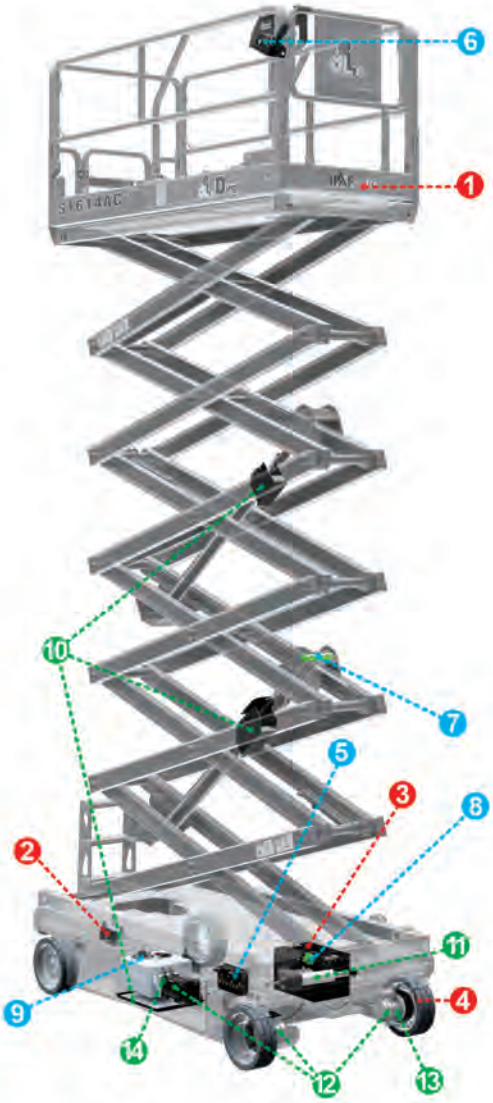
1. **Industry Leading Platform Capacity**
   Maximum increase up to 40% compared to the original model
2. **Side and Rear Forklift Pockets**
   Multiple choices for transport efficiency
3. **Lithium-Ion Battery with Long Duty Cycle and Fast Recharging**
   High-density battery pack with five-year warranty
4. **High Strength Damage Resistant Tyres Compound**
   Double the life compared to conventional tyres

RELIABILITY+

5. **Integrated Four-in-One Motor Controller**
   40% reduction in connections and harnesses
6. **New Platform Control Box**
   The durability of the touch pad is greatly improved, the new surface cleans easily, and the display is three times larger
7. **Reliable Load Sensing System**
   Less affected by temperature and friction
8. **Scissor Angle Sensor Reliability Improvement**
   Limit switches are reduced by 60%
9. **Hydraulic Oil Heater (Optional)**
   Applicable for cold environment

ENVIRONMENT+

10. **Hydraulic Oil Leak Containment**
    For applications with zero leak tolerance
11. **Electric Actuator Steering System**
    No hydraulic oil, faster steering speed and 66% reduction in energy consumption
12. **Gravity Down Energy Recovery System**
    Battery charge regeneration during platform descent
13. **Highest Efficiency Electric Drive System**
    15% decrease in energy consumption and higher power density
14. **Highest Efficiency Electric Lift Pump System**
    20% decrease in energy consumption and higher power density



AC+	250kg	408kg	250kg	450kg	350kg	350kg	350kg	350kg
Working Height	8m	8m	10m	10m	12m	14m	16m	16m
Overall Width	0.7m	0.8m	0.8m	1.2m	1.2m	1.2m	1.2m	1.4m

AC+ Series Scissor Aerial Work Platform

ZHEJIANG DINGLI MACHINERY CO.,LTD.

ADD:188 Qihang Road, Leidian Town, Deqing, Zhejiang, P.R.C

TEL:+86-572-8681688

Phone:+86-13806523131 Susan Huang

E-Mail:export@cndingli.com

Https://en.cndingli.com

CAT® 320 AND 323 GX EXCAVATORS.

FAST PAYBACK

When you choose the Cat® 320/323 GX Excavator for your jobsite, you get the best of both worlds – an easy-to-operate excavator you can count on to get work done and a lower cost. New Smart Mode and next generation electrohydraulics deliver lower fuel consumption. Extended service intervals simplify maintenance and save you maintenance costs. As economy models, both help you save cash flow and boost your productivity. Earning more is easy when you choose a Cat® 320/323 GX Excavator.

HEAVY DUTY
0.93m³ BUCKET

OIL FILTER SERVICE INTERVALS
EXTENDED TO 1000HRS

SAFETY FIRST WITH
GROUND LEVEL CHECKS

CAT®
LET'S DO THE WORK.™

2024 TRENCHLESS ASIA

TRENCHLESS ASIA 2024

16-17 July

World Trade Center Metro Manila, Philippines

The thirteenth event in this outstanding series travels to Manila.

TRENCHLESS ASIA is the major annual international gathering for trenchless technologists to meet and discuss the latest industry developments featuring:

- Trenchless Technology
- Underground Infrastructure
- Pipeline Technologies
- Underground Utilities
- Trenchless Solutions for Urban Flooding
- Knowledge Transfer
- Green Technology

BOOK YOUR STAND TODAY

For more details regarding exhibiting and sponsorship opportunities please contact:
Contact Trevor Dorrell: tdorrell@westrade.co.uk or +44 (0)1923 723990

Organised by: WESTRADE GROUP LTD

Supported by: iSTT International Society For Trenchless Technology; GSTT Trenchless Made in Germany; Federal Ministry for Economic Affairs and Climate Action; NoDig; UKSTT

Chinese Partner: BEST 百斯特展览 Best Int'l Expo

Official Media Partner: Trenchless Romania; TRENCHLESSWORKS

Bronze Sponsors: DCI Digital Control

Platinum Sponsors: DRILLTO 钻通; PipeSolution Inc; USAE; Vermeer; XCMG

Conference & Drinks Sponsor: HERRENKNECHT Tunnelling Systems

Conference Sponsor: PE100+ Association

www.trenchlessasia.com

MINIMIZE WOOD WASTE
BIOMASS ENERGY

ENHANCED ORGANIC MATERIALS PROCESSING WITH HG6000TX

Reduce your carbon footprint and minimize wood waste from land clearing, municipal waste and composting projects into valuable end products. Equipped with a duplex drum that allows for convenient maintenance and an optional chip drum to produce consistent wood chips for biofuel, the HG6000TX Horizontal Grinder delivers both processing efficiency and durability.

Vermeer Asia Pacific | vapinfo@vermeer.com | www.vermeer.com

Vermeer

2nd Edition
CBA EXPO
ConsBuild ASIA 2024

THAILAND INTERNATIONAL CONSTRUCTION, MINING AND BUILDING TECHNOLOGY EXPO

22-24 August 2024

BITEC, Bangkok, Thailand

www.consbuildasia.com

Co-Concurrent with

CONCRETE EXPO ASIA

Register NOW

Organizer

MB Global Marketings Co., Ltd.

For more info, please contact via +66 (0)-81-546-0765 or info@consbuildasia.com

CBA Expo @CBAExpo

Supporters

Diamond Sponsor

ZOOMLION

Platinum Sponsor

ช้ยรัชการ CHAIRATCHAKARN JCB

Gold Sponsor

SDMX 山东米科思

Silver Sponsors

AMMANN Bekaert Teka KAYO SHOJI MINTHONG STS THAI INTER Donaldson FILTRATION SOLUTIONS ZICOM CESCO

Software & Technology Partners

mango Grow your success

AUTOMATION Hatari CONNECT

Bronze Sponsors

TOKAI TIRE & TRACK TOPCON INTER RUBBER InterMiXX DCON DSC PRODUCT TotalEnergies KF&E TAITONG MACHINERY BESCON

Official Media Partner

SOUTHEAST ASIA CONSTRUCTION

One-stop-shop

Require scaffolding? Check out Doka's extensive list of products and systems, which now includes scaffolding for a variety of applications. At Doka, our philosophy is to provide a broad range of services under one umbrella based on a growing demand for single-source solutions that adhere to the highest standards.

/DokaAPAC /company/doka-asia-pacific /doka_apac

AreaMarketing@doka.com | **www.doka.com**

SOUTHEAST ASIAN

BUILDING AND CONSTRUCTION EXHIBITION AND CONFERENCE

BCT
BUILDING CONSTRUCTION TECHNOLOGY

EXPO 2024

18 19 20 SEPTEMBER 2024

Hall 12, IMPACT Exhibition and Convention Center, Bangkok, Thailand

"THE CONSTRUCTION INDUSTRY MEETING PLACE"

SCAN TO VISIT WEBSITE

Website: www.bct-construction.com

BuildingConstructionTechnology Expo/BCT Expo

Organizer IMPACT MUANG THONG THANI

JP Nelson

website: www.jpnelson.com.sg

SINGAPORE · MALAYSIA · THAILAND · TAIWAN · HONG KONG · VIETNAM

Your Reliable Partner in Equipment Solutions

Singapore HQ address: 30 Benoi Road Singapore 629900

TEL: +65 6368 9991 FAX: +65 6367 9991

Boring Rig

Excavator

Hydraulic Grab

Hydraulic Trench Cutter

Generator

Hydraulic Pilling Hammer

Micro Pile

Hydraulic Vibro Hammer

ANTAR CRANES SERVICES PTE LTD

ANTAR
Subsidiary of JP Nelson Group

安達起重機服務私人有限公司

Address: 30 Benoi Road Singapore 629900 TEL: +65 6755 8821 FAX: +65 6754 8821 EMAIL: antarcs@singnet.com.sg

Crawler Crane with luffing jib

Crawler Crane

Crawler Telescopic Crane

Aerial Working Platform

Mini Telescopic Crawler Crane

Mini Crawler Crane

Glass Smart Lift

CONTENTS

NEWS

EVENTS

PRODUCTS

On the cover:
Construction of Danjiang Bridge in Taipei, Taiwan
(page 42)

Cover designed by
Fawzeeah Yamin

Associate Publisher
Eric Ooi (eric.ooi@tradelinkmedia.com.sg)

Editor
Fabia Sugandy (seac@tradelinkmedia.com.sg)

Marketing Manager
Felix Ooi (felix.ooi@tradelinkmedia.com.sg)

Media Sales Consultant
Jasmine Gan (jasmine.gan@tradelinkmedia.com.sg)

Head of Graphics Department/ Advertisement Coordinator
Fawzeeah Yamin (fawzeeah@tradelinkmedia.com.sg)

Circulation
Yvonne Ooi (yvonne.ooi@tradelinkmedia.com.sg)

Any other matters : info@tradelinkmedia.com.sg
Website: http://seac.tradelinkmedia.biz

ISSN 2345-7082

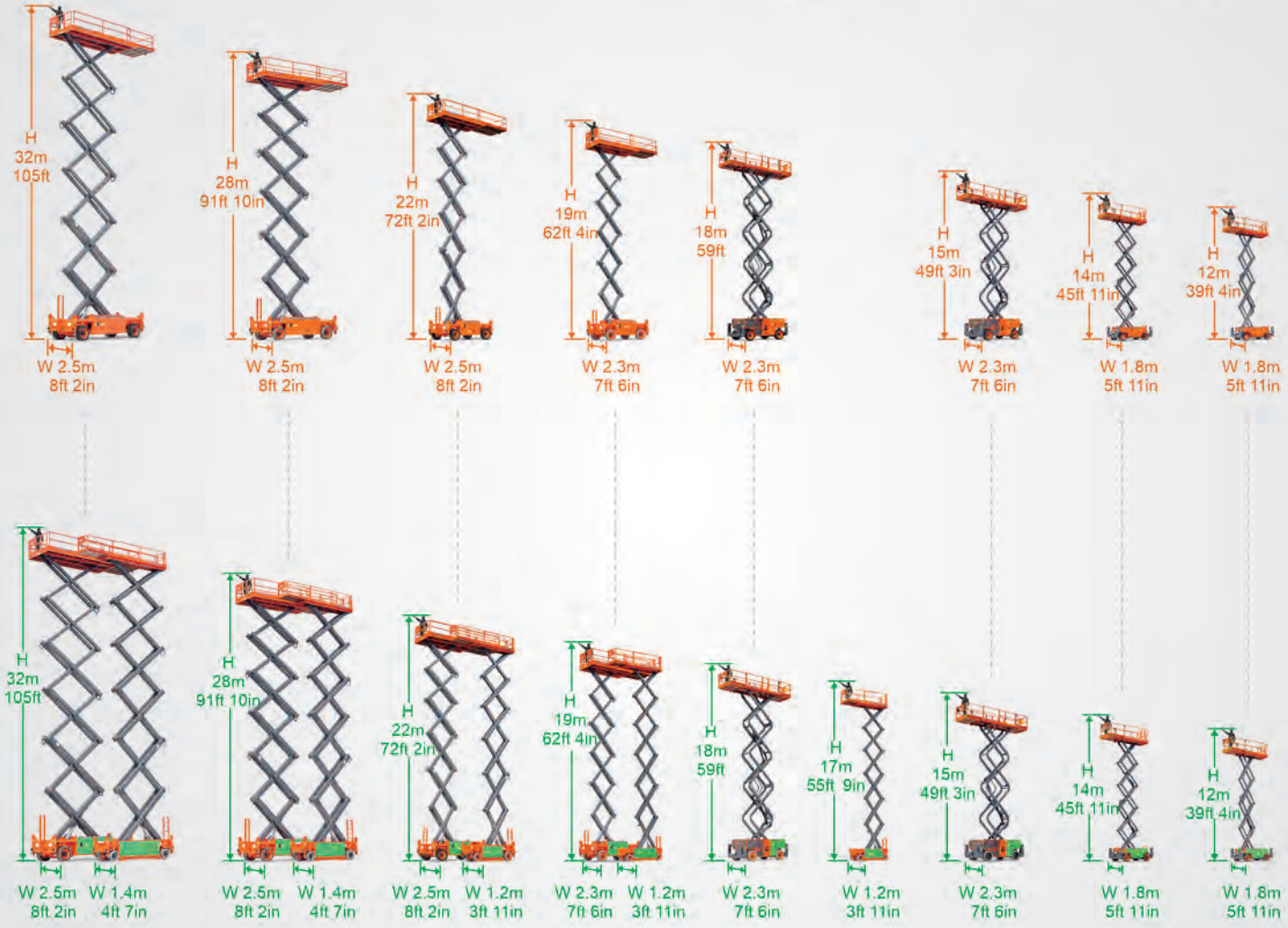
Scan to visit our website

DINGLI

Exceed · New Height

Engine | Electric

Heavy Loading
363kg - 1000kg
800lb - 2204lb



Large Scissor Lifts Series

ZHEJIANG DINGLI MACHINERY CO.,LTD.

ADD:188 Qihang Road, Leidian Town, Deqing, Zhejiang, P.R.C

TEL:+86-572-8681688

Phone:+86-13806523131 Susan Huang

E-Mail:export@cndingli.com

Https://en.cndingli.com

CONTENTS

PROJECTS & OTHER FEATURES

SOUTHEAST ASIA CONSTRUCTION is published six times a year by:
Trade Link Media Pte Ltd. RCB Registration no: 199204277K
Address: 1 Paya Lebar Link, #04-01 Paya Lebar Quarter 1 (PLQ 1), Singapore 408533
Tel: +65 6842 2580 Email: info@tradelinkmedia.com.sg
Website: http://seac.tradelinkmedia.biz

The magazine is available free-of-charge to applicants in the building and construction industries who meet the publication's terms of control. For those applicants who do not qualify for free subscription, copies will be made available, subject to the acceptance by the publisher, of a subscription fee which varies according to the country of residence of the potential subscriber. Airmail (per year): Singapore - S$70; Malaysia and Brunei - S$120; Rest of Asia - S$180; Japan, Australia, New Zealand, Middle East, Europe and USA - S$220 (Inclusive of GST / Reg: M2-0108708-2).

Printed in Singapore by Fuisland Offset Printing (S) Pte Ltd.
MCI (P) 061/08/2023 • ISSN 2345-7082 (Print) and ISSN 2345-7090 (E-Periodical) • KDN No: 1560 (1271)-(6)

INTERNATIONAL SALES OFFICE:
Mr. Akiyoshi Ojima, Echo Japan Corporation
Grande Maison Rm 303, 2-2, Kudan-Kita 1-Chome, Chiyoda-ku, Tokyo 102, Japan
Tel: +813 3263 5065, Fax: +813 3234 2064
Email: ojima@echo-japan.co.jp

SMASHING ALL RECORDS FOR PULVERIZING CONCRETE*

*Indeco IFP/IRP pulverizers get the job done up to 30% faster than rival products in the same class.

What sets Indeco equipment apart is not just what it accomplishes, but also how it does so. With the unique design of their hydraulic cylinder and their special regeneration valve, which speeds up jaw opening and closure, Indeco IFP/IRP pulverizers significantly lower cycle times and thus boost productivity.

Discover the range

INDECO
A TOOL FOR EVERY JOB

Megawide supplies precast units for Philippines' Candaba Viaduct project

Megawide Construction Corporation's Precast and Construction Solutions (PCS) unit is working closely with Leighton Asia by supplying precast double-tee slabs for the North Luzon Expressway's (NLEX) Candaba Viaduct expansion in the Philippines. The project, which involves the construction of an elevated roadway spanning the Candaba swampland between the provinces of Bulacan and Pampanga, aims to further enhance the efficient flow of traffic within the thoroughfare.

The PCS contract package covers 6 km of viaduct area, where the double-tee slabs will be installed to serve as the bridge's main support. Double-tee slabs are structures resembling the shape of side-by-side capital 'T's' capable of supporting heavy loads with a wide span.

"Double-tee slabs are ideal for elevated roads due to their strength and durability in supporting heavy loads from large volumes of vehicles, while meeting the prescribed width. Furthermore, precast is an ideal alternative for these types of infrastructure projects, which offers faster turnaround times, flexible, lightweight design, and higher levels of standardisation," explained Markus Hennig, executive vice president at Megawide PCS.

The Candaba Viaduct system is Megawide's first project showcasing its precast double-tee slabs. Production of these formats started last year in time for the project's commencement within the first half of 2024.

As part of its expansion programme and as a means to improve logistics and efficiency, PCS plans to deploy a new mobile precast plant in Northern Luzon that will serve Candaba and other projects in the area.

PCS continues to innovate and augment its precast capabilities for infrastructure and has supplied units to major projects like Mactan-Cebu International Airport, Clark International Airport, Metro Manila Skyway, and the LRT-2 extension, using specialised proprietary technologies, such as hollow core in producing prestressed slabs with long spans that maintain maximum strength and form liners, which add architectural finish.

Philippine contractor Megawide's PCS unit is supplying precast double-tee slabs for the North Luzon Expressway's (NLEX) Candaba Viaduct expansion project.

Megawide's main precast plant, located in Taytay, Rizal, is known to be the largest and most advanced in the Philippines and one of the largest in Southeast Asia – producing up to 168,000 cu m of precast units per year. Megawide intends to expand its PCS external order book to include more precast supply and build projects for major infrastructure developments across Luzon. ■

Megaleio – new iconic residential project in Hyderabad, India

Navanaami Projects Private Ltd has unveiled Megaleio, a new iconic residential project in Hyderabad, India. It features two distinctive towers soaring to a height of 50 storeys, encompassing 150 units.

This luxurious development is spread across 4.1 acres, surrounded by a 1,200-acre green expanse and in close proximity to the protected waterbodies of Himayat Sagar and Osman Sagar.

According to Navanaami, sustainability is at the core of Megaleio, with this IGBC certified and LEED-designed project being developed to minimise its environmental footprint, in collaboration with global firms such as DesignHaaus, Tierra, Arup and Optimisation Consultants. ■

An artist's impression of Megaleio, a new iconic residential project in Hyderabad, India.

LEADERS IN LUFFING CRANE SOLUTIONS

JASO TOWER CRANES
Ctra. Madrid-Irún, Km 415 • 20213 Idiazabal (Gipuzkoa) • Spain
T. (+34) 943 187 000 • **E.** jaso@jaso.com • www.jaso.com

JASO TOWER® CRANES

We **build** the cranes that **build** the world.

Follow us at:
www.jaso.com

JASO GROUP®

AI viewed as an essential growth driver in Singapore's construction industry: Report

Singapore construction companies are planning to expand their use of digital technologies and are investing more than 20% of their expenditure into these digitalisation efforts, according to the recently launched 'State of Digital Adoption in the Construction Industry 2024' report by Autodesk. While local industry players are currently utilising an average of five different technologies, respondents shared their aim of increasing this to an average of seven additional technologies – a higher number than any other country included in the study.

Jointly conducted with Deloitte, this is the second edition of the annual survey that explores digital adoption trends in the construction sector and is based on insights from 933 construction firms across six markets including Singapore, Australia, Japan, India, Malaysia and Hong Kong.

The pace of digital transformation among Singapore construction companies is likely to have been accelerated by complementary government policies. These include Singapore's Built Environment Industry Transformation Map which prioritises the adoption of common data standards and building information modelling (BIM) technology. This has likely contributed to BIM technologies and data analytics ranking among the top three technologies adopted by Singapore construction companies, used by 40% and 36% of respondents respectively. Nearly four in 10 (39%) are also using construction management cloud software, and prefabrication and modular construction technologies.

"With the challenges facing Singapore's construction industry, AI and technology adoption has become integral for businesses to succeed and to help reduce the costs of construction," said Sumit Oberoi, senior industry strategist for Asia Pacific at Autodesk. "Disruptive new technologies combined with a challenging business outlook means that construction and engineering leaders in Singapore and the rest of the Asia Pacific region will need to seriously rethink their tools, workforce skill needs and how they interact with clients and contractors."

Artificial intelligence (AI) also ranked among the technologies that Singapore construction companies are most keen to adopt, with nearly all (98%) considering the technology to be important to their business growth – the highest share of any country surveyed. The report finds that 30% of construction companies in Singapore surveyed are currently trialling or using AI or machine learning (ML) software. Findings indicate that the main benefits arising from AI adoption among Singapore industry players include improved efficiencies (61%), better margins (59%), with nearly six in 10 (57%) citing increased competitive advantages, new ideas and insights, as well as enhanced relationships with clients.

More than half (56%) also mentioned the potential of AI to reduce costs, a key advantage that comes at a time when construction costs in Singapore are increasing. According to data from Singapore's Building Construction Authority (BCA), tender prices for construction projects across the country increased by more than 4% year-on year in 2023. With factors such as manpower constraints and global inflation poised to create upward pressure on costs in 2024, the ability to manage costs will be especially important amid a strong pipeline of construction projects forecast in Singapore for the year ahead. In line with this, nearly half (45%) of Singapore construction companies surveyed expressed plans to use AI in future.

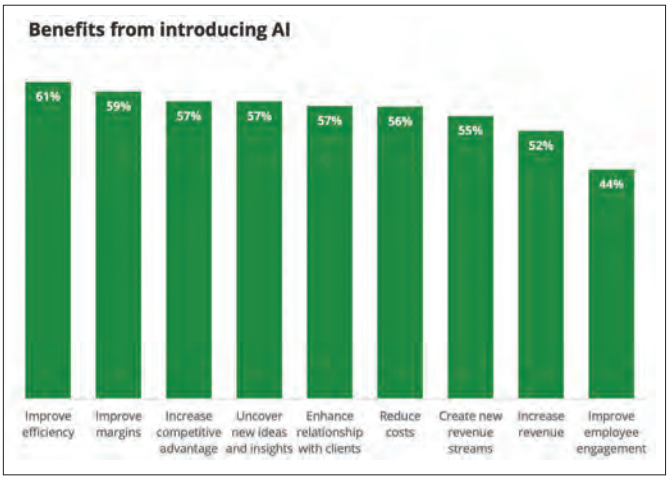


Image: Deloitte

Artificial intelligence (AI) is expected to bring efficiency and profitability benefits to Singapore construction companies.

"Generative AI has exploded onto the agenda for senior leaders with the rapid adoption of tools like ChatCPT, Midjourney and Github Copilot. No industry is immune from the transformative potential of this technology," added Mr Oberoi. "Generative AI means that a new project proposal doesn't need to start from scratch, instead leveraging material and pricing based on projects completed by the company with similar specifications."

David Rumbens, partner at Deloitte Access Economics, said, "If all companies with plans to adopt AI do so, AI will have a similar level of prevalence in the construction industry as data analytics or mobile apps."

However, integrating technologies like these into business operations will be no small feat. The report identified the lack of digital skills as a key barrier to technology adoption, registered among more than a third (34%) of Singapore respondents. Findings also indicate that Singapore construction companies were the most likely out of all countries surveyed to find actions aimed at reducing skill gaps ineffective. For instance, while 79% of construction companies in Singapore had hired new workers, 32% found this to be ineffective in addressing the skills gap, a figure well above the regional average of 16%.

"Priority areas for construction businesses to improve digital adoption include starting small by piloting projects, selecting a digital champion, tracking a range of success measures, building a digital ecosystem, and assessing whether your business has the right processes and talent in place to support technology implementation at scale. For instance, the first step to successfully implementing AI is data standardisation and having an operational common data environment for teams. From a talent perspective, construction companies in Singapore may leverage relevant government-led initiatives such as the SkillsFuture programme. This is aimed at promoting skills mastery and lifelong learning for industries inclusive of construction, paving the way for a future-ready digital workforce," concluded Mr Oberoi. ■

Mapelastic

30 years experience and more than **350 million m²** of surfaces **successfully waterproofed**.

Two-component flexible cementitious mortar
for protecting and waterproofing concrete surfaces,
balconies, terraces, bathrooms and swimming-pools.

IN COMPLIANCE WITH EUROPEAN STANDARD
EN 1504-2 (C)
PRINCIPLES
PI-MC-IR
SURFACE PROTECTION SYSTEMS FOR CONCRETE

CE
EN 1504-2

In compliance with EN 14891

SCAN TO KNOW MORE

EVERYTHING'S OK WITH MAPEI

28 Tuas West Road, Singapore 638383
T: +65 6862 3488 E: mapei@mapei.com.sg
Learn more on **www.mapei.com.sg**

Mapei Singapore

MAPEI

IJM Construction wins three new contracts in Malaysia

IJM Construction Sdn Bhd, a wholly owned subsidiary of IJM Corporation Berhad, has secured new contracts for the construction of a logistics hub in Selangor, a semiconductor manufacturing facility in Penang, and a data centre in Johor.

In Selangor, IJM Construction won a RM584.3 million contract from Strategic Sonata Sdn Bhd for the construction of Plot A of a logistics hub at Section 15 in Shah Alam. This involves the construction and completion of six storeys of ramp-up warehouses with offices, a two-storey cafeteria, and all associated ancillary structures and services. The project is expected to be completed within 28 months from the commencement date, scheduled for 20 June this year.

"Leveraging advanced construction methods and value engineering, we aim to meet our clients' evolving needs while maintaining our focus on sustainability and efficiency. This logistics hub project underscores our capability to execute large-scale logistics developments that align with our strategic goals and environmental objectives," said Lee Chun Fai, group CEO and managing director of IJM Corporation.

The project aims to achieve the GreenRE Gold certification by adopting it as the benchmarking and assessment system for the development. The GreenRE assessment will evaluate the design, construction and operational phases of the building, ensuring compliance with stringent environmental standards. The certification process focuses on six key pillars: energy efficiency, water efficiency, carbon emission reduction, environmental protection, indoor environmental quality and the integration of other green features.

In addition, IJM Construction was awarded a RM378 million contract to build Phase 1 of a semiconductor manufacturing facility for Siliconware Precision Malaysia Sdn Bhd at the Bandar Cassia Technology Park in Penang. The Phase 1 facility will include a four-storey production building with an office, a four-storey centralised utilities building, a four-storey warehouse building, a 33 kV substation building, and a link bridge to support advanced semiconductor production. Construction of the project is set to complete by October 2025.

To accelerate the construction process, IJM Construction will utilise the smart IBS (industrialised building system) solution from IJM IBS Sdn Bhd. This advanced construction method enhances efficiency, reduces construction time and ensures excellent quality by using prefabricated components manufactured in an IR4.0 automated precast system off-site and then assembled on-site. Such an approach minimises environmental impact and showcases the group's vertically integrated construction capabilities, leading to streamlined project execution with high-quality results.

TOP AND ABOVE: **Artist's impressions of Siliconware Precision Malaysia's semiconductor manufacturing facility, located at the Bandar Cassia Technology Park in Penang.**

The third contract, totalling RM331.7 million, is to design and construct Block 2 of the Iskandar Puteri Data Centre in Johor for TM Technology Services Sdn Bhd. This project encompasses the foundation, substructure, superstructure, building works, mechanical and electrical services, fit-out works, testing and commissioning. Construction of the facility will begin in July 2024 and is slated for completion by the third quarter of 2025.

"This data centre project is a strategic milestone for IJM Construction, diversifying our portfolio and enhancing our capabilities in high-tech construction. Data centres are critical as the backbone of digital infrastructure, and this project paves the way for IJM to become a key player in this essential sector," said Mr Lee.

The Malaysian data centre market is growing rapidly, with the country emerging as a key hub due to its strategic location and supportive infrastructure. This expansion provides significant growth potential for IJM Construction. By leveraging its internal supply chain capabilities, including spun piles and industrialised building systems from IJM's Industry Division, the group is well-positioned to capitalise on these opportunities. ■

MBAM ONEBUILD

10 ANNIVERSARY Celebration

MALAYSIA INTERNATIONAL CONSTRUCTION & INFRASTRUCTURE TECHNOLOGY EXHIBITION

Register Your Visit
(FREE ADMISSION)

28 ▸ 30 AUG 2024

KUALA LUMPUR CONVENTION CENTRE (KLCC)

Opening Hours: 10 am - 6 pm

The Professional Trade Exhibition Exclusively Dedicated to the Construction & Infrastructure Industry

EXHIBITION SEGMENTS

www.mbamonebuild.com.my

Co-located: ONEWARE

Denzai signs crane lease contract for Long Thanh Airport project in Vietnam

Japan's Denzai K.K has announced that its subsidiary, Denzai Vietnam Corporation, has signed a crane lease contract for the Long Thanh International Airport project, which is under construction in the suburbs of Ho Chi Minh City, Vietnam.

The new Long Thanh International Airport is being built by a joint venture (JV) of 10 companies, including local firms, and Denzai Vietnam has signed the contract with ATAD Steel Structure Corporation, a member of the JV.

As part of the deal, two 800-t crawler cranes and other equipment owned by Denzai will operate at the jobsite of the new airport terminal to help carry out the construction work from October 2024 to February 2025.

Kohki Uemura, CEO of Denzai, said, "We received the order in recognition of our track record of providing crane operations for several airport construction projects, including the Haneda Airport Runway A Extension Project and Narita Airport Expansion Project.

"We are very honoured to be involved in this major project to build a new air gateway to Ho Chi Minh City, Vietnam, where the population continues to grow and the economy continues to develop." ■

The contract signing ceremony was held on 27 June 2024. Kohki Uemura, CEO of Denzai (fourth from right) shakes hand with Nguyen Le Anh Tuan, general director of ATAD.

Singapore's Lian Hup Brothers acquires eight Manitou machines

Singapore's Lian Hup Brothers Pte Ltd has purchased eight Manitou machines, which comprise another three units of MT-X 1840, three units of MC-X 50-4 and two units of MI 35 D. These machines were supplied by Manitou Center Singapore (MCSG), a leading provider of telehandlers and rough-terrain forklifts in the country.

Previously, Lian Hup Brothers invested in the MRT-X 2660, MT-X 1840 and M-X 50-4 units. Due to familiarity and excellent support, the company has decided to continue its partnership with MCSG.

The MT-X 1840 telehandler can lift loads of up to 4 t to up to 18 m and is perfectly suited to sites where work at height is required. Its generous ground clearance, three steering modes and sharp turning radius make manoeuvrability easy on uneven terrain.

The MC-X 50-4 rough-terrain forklift is designed for activities on difficult terrain or with obstacles. It is able to lift loads of up to 5,000 kg with four-wheel drive and a ground clearance of 43 cm, thus offering good manoeuvrability on the jobsite. Users also benefit from a choice of tyres, allowing them to adapt to every ground condition and in turn increasing their work productivity.

Manitou Center Singapore has officially handed over eight machines (comprising the MT-X 1840, MC-X 50-4 and MI 35 D models) to Lian Hup Brothers in Singapore.

Moving forward, Lian Hup Brothers is planning for further investments in 2025, including additional MT-X 1840, M-X 50-4 and MI-X 35 D units. The company is set to deploy its Manitou machines on various construction projects.

Established in 1968, Lian Hup Brothers specialises in general import and export of heavy vehicles, motorcycles, motorcars, spare parts, body parts (e.g. engines, gearboxes, cabins, chassis, pumps, etc) and other related accessories including motor insurance and motor accident claims. In the last decade, the company has also ventured into heavy machineries and fabrication and modification of heavy trucks, such as dump trucks and concrete mixer trucks as well as their related parts. ■

MyCrane strengthens presence in India with new sales director

MyCrane (www.my-crane.com), the first global platform for online crane rental, has bolstered its fast-growing business in India with the appointment of Mumbai-based Ashishkumar Tiwari to the role of sales director, India.

Mr Tiwari has two decades of professional experience in India, working closely with the construction industry, as well as engineering, procurement and construction (EPC) clients. His career highlights include holding the post of senior manager, plant and machinery for Reliance Industries Limited, India's largest public company.

"India is proving to be one of the most receptive markets for our vision to digitalise the construction industry and help clients work more productively, safely and sustainably," said Andrei Geikalo, founder and CEO of MyCrane. "We are delighted to welcome Ashish to our expanding team and his contributions are already proving invaluable."

In less than a year, MyCrane has registered many of India's biggest industrial companies as customers. Via the free-to-use platform, MyCrane's Indian clients have access to more than 300 rental providers and thousands of cranes. Recent supplier registrations include Tiong Woon, one of Asia's largest heavy lift equipment owners.

MyCrane founder and CEO Andrei Geikalo (on the left) pictured on a client visit with Ashishkumar Tiwari, the platform's newly-appointed sales director for India.

"There is strong demand for cranes across the country, much of it driven by wind energy projects," said Mr Tiwari. "With lifting equipment in such high demand, MyCrane has an even more important role to play in helping our clients secure the cranes they need. I look forward to contributing to the digital transformation underway in our industry."■

LTA awards civil contract for tunnels under Singapore's Cross Island Line Phase 2 project

Singapore's Land Transport Authority (LTA) has awarded the civil contract for the design and construction of tunnels between the West Coast station and Jurong Lake District station (working names) for Cross Island Line Phase 2 (CRL2) to Nishimatsu Construction Co Ltd – Okumura Corporation Singapore Branch Joint Venture (JV).

Valued at around S$242 million, this contract encompasses the construction of twin bored tunnels, each extending 2.4 km beneath the Sungei Pandan canal and key infrastructure such as the West Coast Highway and Ayer Rajah Expressway. These tunnels are projected to reach depths of up to 40 m, surpassing the typical 30-m depth for other stations, said LTA. The ground conditions in this area predominantly consist of weathered soil and hard sedimentary rock.

LTA added that real-time monitoring and safety measures will be implemented during the tunnelling works. Together with the contractors, LTA will also implement necessary mitigation measures to ensure ground stability and safe construction and minimise impact on nearby stakeholders and infrastructure.

Construction works on the tunnels are expected to start in the fourth quarter of 2024, with passenger service for CRL2 targeted to commence in 2032.

Nishimatsu Construction is currently constructing the bored tunnels between Tampines North station and Defu station (working names) for CRL Phase 1. The contractor has previously completed tunnelling works at Keppel station for the Circle Line 6 as well as Gardens by the Bay station for the Thomson-East Coast Line.

Image: LTA

Location map of tunnels between the West Coast and Jurong Lake District stations for the Cross Island Line Phase 2 in Singapore.

Okumura Corporation is also experienced in tunnelling works locally and abroad, having worked on projects such as the Deep Tunnel Sewerage System in Singapore as well as the Hong Kong Mass Transit Railway and Taipei MRT Airport Line. ■

Volvo CE opens battery production facility in South Korea

Volvo Construction Equipment (Volvo CE) has inaugurated its new battery production facility in Changwon, South Korea. Mass production of the battery packs began on 23 April 2024, and the units will initially be used in the new model of Volvo 23-t EC230 Electric excavator which is scheduled to start mass production in Changwon from August 2024.

This new 2,500 sq m facility is situated within the existing component workshop at Volvo CE's Changwon plant and includes assembly and logistics areas. It has been built with an investment cost of US$7.8 million and will produce battery pack solutions for the Volvo Group.

"In April 2022, we established a mass production line for electric excavators and with the completion of this new facility, we can now produce them in-house, from batteries to finished products, saving time and logistics costs," said Andrew Knight, head of excavator industrial strategy and managing director of Volvo Group Korea.

According to Volvo CE, Changwon is an ideal location for a battery pack production facility as it is close to battery module supply partners and other key suppliers in South Korea.

"The investment in our facilities is an important part of our strategy to drive the transformation towards more sustainable solutions and to help us meet our Science Based Target commitments," said Kamel Sid, head of operations at Volvo CE.

The new facility, situated within the existing component workshop at Volvo CE's Changwon plant, will produce battery pack solutions for the Volvo Group.

"We have an ambition to be fossil-free and for 35% of our machine sales to be electric by 2030, so investing in our facilities is another important step on our electrification roadmap.," added Mr Sid. "We see increasing demand from our customers for more sustainable solutions and we are committed to meeting this demand by adapting our production for electric machines." ■

All solutions for Construction Safety

K-CONSAFETY EXPO 2024

Korea International Construction and Industrial Safety Expo 2024

Oct. **16(Wed) to 18(Fri)**, 2024(for 3 days) / **KINTEX**

Sponsored by Ministry of Land, Infrastructure and Transport · Ministry of Employment and Labor · GYEONGGI-DO

Hosted by KINTEX · EXPOnU

Promoting a large exhibition with a scale of 54,000 m² by opening five exhibitions :
Expectation to create synergy by expending related industries and new markets

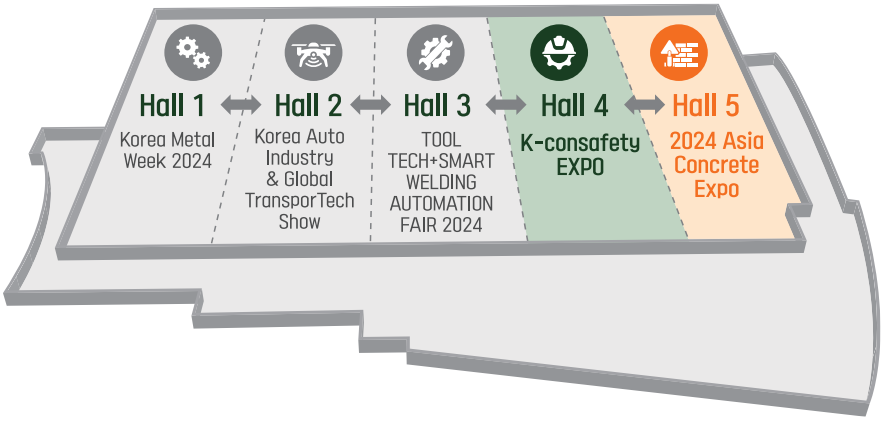
Held by potential buyer

ASIA CONCRETE EXPO KOREA

INTERNATIONAL CONCRETE, CEMENT & MODULAR CONSTRUCTION
(Off-Site Construction) TECHNOLOGY TRADE SHOW

16(Wed)- **18**(Fri) **October 2024** KINTEX, Republic Of Korea

Early application for **recruitment of participating companies is on discount !**



2024 Asia Concrete Expo	10,000㎡
K-consafety EXPO	11,000㎡
TOOL TECH+SMART WELDING AUTOMATION FAIR 2024	11,000㎡
Korea Auto Industry & Global TransporTech Show	11,000㎡
Korea Metal Week 2024	11,000㎡

Contact Information KINTEX office www.k-consafetyexpo.com www.asiaconcretex.com
Tel. 031-995-8782/7255/8042 **Email.** kconsafety@kintex.com / concretex@kintex.com

Shimizu develops metaverse remote inspection system for under-construction buildings in Japan

Japanese contractor Shimizu Corporation has developed a metaverse inspection system capable of performing various remote inspections of buildings inside a virtual space with realistic replications of under-construction buildings, with the assistance of Tsumiki Seisaku Co Ltd under the direction of The Building Centre of Japan (BCJ).

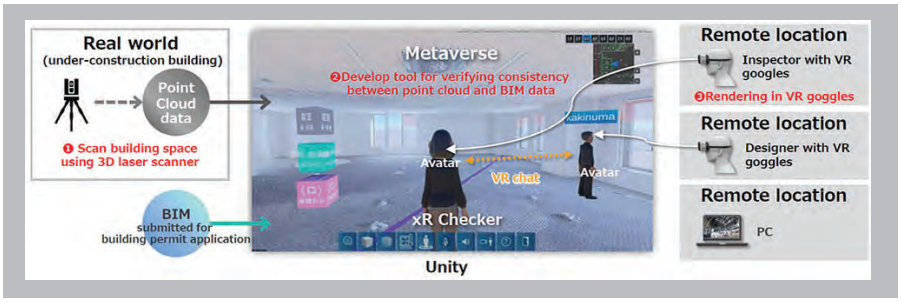
The system consists of a metaverse, which combines the 3D scan model of the building with design BIM (3D) data, and xR Checker, a tool for checking the consistency between the two. In the future, Shimizu intends to open this system to the public and contribute to streamlining building construction and production in Japan.

Every year, after building permits are received, nearly 600,000 buildings in Japan undergo inspections repeatedly from the start to completion of construction to verify conformity with the drawings that the building permits were based on, explained Shimizu. Construction supervision by designers as well as intermediate and final inspections by chief building inspectors and others from the government are typical examples of this.

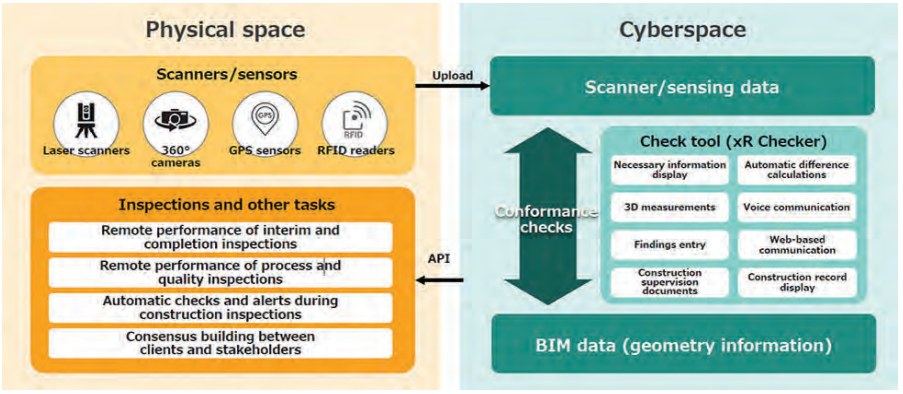
In many cases, multiple persons in charge visit the site, drawings in hand, to perform visual inspections and conformity checks using simple measuring instruments. They also review progress photos and inspection reports. Thus, a vast amount of time is spent travelling for inspections, with travel time for completion inspections alone exceeding one million hours nationwide.

Since June 2019, Shimizu has been working on building permit applications and various inspections using BIM data to improve the efficiency of building construction and production. The contractor has already developed a system that uses augmented reality (AR) technology to conduct remote inspections via a tablet screen – which has been well received by the BCJ.

However, Shimizu noted that the challenge was to increase the sense of presence by eliminating constraints of the field of view. Metaverse inspection solves issues like these all in one go and has the potential to serve as a touchstone for accelerating the widespread adoption of remote inspections.



By wearing VR goggles, the inspector can enter the metaverse as an avatar, opening up a realistic field of view without any constraints.



Both images: Shimizu

Metaverse inspection has the potential to serve as a touchstone for accelerating the widespread adoption of remote inspections.

Entering metaverse as avatars

The metaverse that makes up this system combines BIM (3D) data on buildings that have received permits in the cloud with 3D point cloud data on scans of the space of under-construction buildings. By wearing VR goggles, the inspector can enter the metaverse as an avatar, opening up a realistic field of view without any constraints.

Operating the controller, the inspector can instantly move the avatar to any location in or around the building and carry out inspections from any viewpoint, even those not available in reality, such as a bird's eye view.

Inside the virtual space, it is also possible to have voice conversations with relevant parties from other locations who are present as avatars and check documents such as process photos and inspection reports downloaded from the cloud.

Moreover, the xR Checker functionality enables instant automatic measurement of the consistency between BIM data and point cloud data, providing a colour-coded display of the differences that exceed the set tolerance.

These functions allow for inspections of buildings during construction regardless of location, resulting in a more streamlined and efficient work on the projects. According to Shimizu, the system has already been verified using actual buildings; and although some areas for improvement have been identified, the BCJ says it is suitable for practical use.

Shimizu further highlighted that the Ministry of Land, Infrastructure, Transport and Tourism of Japan has issued a notice dated 9 May 2022 to the director-general of the architectural administration of each prefecture, entitled 'Remote Implementation of On-site Completion Inspections Using Digital Technology Based on the Building Standards Act.' Based on this notice, it is expected that in addition to building permit applications, the use of BIM will rapidly spread in inspections associated with building permits and the processes of construction supervision. ■

WORLD OF CONCRETE ASIA

informa markets

SAVE THE DATE!

Contact Us

Exhibiting Inquiry

James Xiao

E: james.xiao@informa.com

T: +86 21 6157 7241

Visitor & Media

Sophia Li

E: Sophia.li@informa.com

T: +86 21 6157 7284

Rigister Free Now!

Doka plays key role in setting standards for calculating product carbon footprint of formwork and scaffolding

Global formwork and scaffolding manufacturer Doka has played a key role in the development of minimum standards for calculating product carbon footprints (PCFs) – a milestone for the formwork and scaffolding industry and a further step down the road to decarbonising the construction sector.

The PCF measures the total greenhouse gas emissions (GHG) generated by a product across all its relevant material life cycle phases. It is an important tool for assessing the overall climate impact of a product and identifying levers to reduce emissions in the value chain.

"Competitiveness, sustainability and transparency are becoming increasingly intertwined, and valid data is key to sustainable decision-makings. Two years ago, we set new standards in the formwork and scaffolding industry by fully calculating the product carbon footprint of more than 7,000 Doka products. We are proud that we have now also been able to make a significant contribution to establishing minimum standards in the industry for the first time," said Robert Hauser, CEO of Doka.

The Güteschutzverband Betonschalungen Europa e.V. (GSV), a European association of manufacturers, suppliers and users of formwork and scaffolding systems, set up a working group with the aim of developing a standard for the transparent quantification of a GSV product carbon footprint (GSV-PCF-Standard) for the formwork and scaffolding sector. The agreement on minimum standards, which has now been published after less than a year, is the result of intensive cooperation. With this step, Doka and its market partners are not only setting a new standard in the industry, but are also helping to establish the transparency on GHG emissions as a standard in the value chain.

ABOVE: **Julia Weber, head of sustainability at Doka, was a member of the GSV working group on sustainability.**

LEFT: **Robert Hauser, CEO of Doka.**

BELOW LEFT: **Doka has calculated the PCF for more than 7,000 formwork and scaffolding products. This image shows the company's DokaXdek panel system.**

All images: Doka

"We are delighted to have been able to contribute our many years of experience and our calculation methodology to the GSV joint working group. This industry-wide agreement between leading manufacturers brings us a big step closer to being able to better compare product carbon footprints, and thus to create a level playing field within the formwork and scaffolding industry," added Julia Weber, head of sustainability at Doka. All PCF data for Doka formwork already complies with the GSV-PCF standard.

For more than two years, Doka has been providing its customers with transparent data on the GHG emissions of its products. "When it comes to sustainability, facts count, not gut feelings," emphasised Ms Weber. This is precisely the focus of Doka's PCF initiative, which aims to support customers in their sustainability efforts – from more sustainable purchasing decisions and public tenders with CO_2 budgets to calculating their own corporate carbon footprint (scope 3 emissions).

At the same time, the PCF is an important pillar of Doka's sustainability strategy. "We are consistently pursuing our goal of net-zero emissions by 2040, and in the long term we are striving for ever lower-emission product strategies. The data obtained from the product carbon footprint is already an integral part of the innovation process at Doka," said Ms Weber. "After all, transparent data is the key to sustainable construction." ■

Dr Ingo Ettischer named new president of Bomag

Dr Ingo Ettischer is the new president of Bomag, as of 1 July 2024, succeeding Ralf Junker. Dr Ettischer was most recently managing director and chief operating officer of the company, a post in which he served since July 2023.

Before joining Bomag in 2023, Dr Ettischer spent 21 years in management at Mercedes-Benz AG in the truck, van and car divisions in various global executive and production roles. Prior to that, he successfully led several strategy and operational excellence projects in different industries at a top management consultancy for a number of years.

"Bomag is set to continue to grow internationally in size and portfolio. We are confident that Dr Ingo Ettischer, with his experience, knowledge and energy, will boost the company's growth and lead Bomag successfully into the future," said Jean-Claude Fayat, owner and president of the Fayat Group, the parent company of Bomag.

"Together with a strong management team and a highly skilled workforce, we will steer Bomag into a successful future. The close relationship with our customers, our innovative strength based on knowledge and commitment, and our enthusiasm for our machines and technologies will be decisive in this respect," said Dr Ettischer on his new role. "By clearly focusing on our customers, innovative products and an internationally oriented production network, we will position ourselves competitively as a technology leader and thus continue to grow in the future."

Meanwhile, Mr Junker looks back on a long and successful career at Bomag. Since 1988, he has held various positions in production at the Boppard (Germany) site before taking over responsibility for production at Bomag's worldwide production sites. In 2001, he became a member of the Bomag executive board and was appointed managing director in 2009. He was named president of Bomag in 2017. From 2017 to 2020, he was also responsible for global sales. After 36 years at Bomag, Mr Junker will retire but continue to advise the Fayat Group.

"Ralf Junker has significantly shaped the company over the years. Particularly noteworthy is his central role in the reorganisation of Bomag, especially during the integration process into the Fayat Group. His leadership, commitment and extensive expertise have always contributed to putting Bomag on a strong growth trajectory, with sales now exceeding one billion euros," said Jörg Unger, president of the Fayat road equipment division.

Bomag is a global construction machinery manufacturer and technology partner for the road building and earthmoving industries, headquartered in Boppard, Germany. In addition to its focus on earth and asphalt rollers, planers, pavers and walk-behind compaction technology, the company offers a complete portfolio of stabilisers or recyclers and machines for refuse compaction.

Founded in 1957, Bomag now operates six branches in Germany and is globally active with 12 independent subsidiaries. The company currently has 2,500 employees worldwide, plus a sales and service network of over 500 dealers in 120 countries. Bomag also builds machines in its own production facilities located in Europe, China, India and the US. ■

Dr Ingo Ettischer (right) takes over as president of Bomag on 1 July 2024, succeeding Ralf Junker (left).

CALENDAR OF EVENTS

// Events in Asia

Trenchless Asia
16 to 17 July 2024
World Trade Centre Metro Manila
Metro Manila, The Philippines
Website: www.trenchlessasia.com

World of Concrete Asia
14 to 16 Aug 2024
Shanghai New International Expo Centre
Shanghai, China
Website: https://en.wocasia.cn

CBA Expo (ConsBuild Asia)
22 to 24 Aug 2024
Bangkok International Trade and Exhibition Centre
Bangkok, Thailand
Website: www.consbuildasia.com

ASEAN International Construction Machinery & Mining Equipment Exhibition
22 to 24 Aug 2024
Malaysia International Trade and Exhibition Centre
Kuala Lumpur, Malaysia
Website: www.ciceesea.com

MBAM OneBuild
28 to 30 Aug 2024
Kuala Lumpur Convention Centre
Kuala Lumpur, Malaysia
Website: www.mbamonebuild.com.my

IBEW / BEX Asia
4 to 6 Sept 2024
Sands Expo and Convention Centre
Singapore
Website: www.ibew.sg / www.bex-asia.com

OS+H Asia
11 to 13 Sept 2024
Sands Expo and Convention Centre
Singapore
Website: www.osha-singapore.com

Construction Indonesia
11 to 14 Sept 2024
Jakarta International Expo
Jakarta, Indonesia
Website: www.constructionindo.com

BCT Expo (Building Construction Technology Expo)
18 to 20 Sept 2024
Impact Exhibition and Convention Centre
Bangkok, Thailand
Website: www.bct-construction.com

K-Con Safety Expo / Asia Concrete Expo & Smart Modular Construction Expo
16 to 18 Oct 2024
Korea International Exhibition Centre
Goyang, South Korea
Website: www.k-consafetyexpo.com / www.asiaconcretex.com

Philconstruct
5 to 7 Sept 2024
SMX Convention Centre Davao
Davao City, The Philippines
Website: www.philconstructevents.com/philconstruct-mindanao-2024

7 to 10 Nov 2024
SMX Convention Centre Manila &
World Trade Centre Metro Manila
Metro Manila, The Philippines
Website: www.philconstructevents.com/philconstruct-manila-2024

bauma China
26 to 29 Nov 2024
Shanghai New International Expo Centre
Shanghai, China
Website: www.bauma-china.com

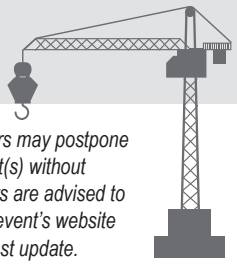
bauma Conexpo India
11 to 14 Dec 2024
India Expo Centre
Greater Noida, India
Website: www.bcindia.com

// Events outside Asia

Metalcon
30 Oct to 1 Nov 2024
Georgia World Congress Center
Atlanta, USA
Website: www.metalcon.com

World of Concrete
21 to 23 Jan 2025
Las Vegas Convention Centre
Las Vegas, USA
Website: www.worldofconcrete.com

bauma
7 to 13 Apr 2025
Munich Trade Fair Centre
Munich, Germany
Website: www.bauma.de



Note: *The organisers may postpone or cancel their event(s) without prior notice. Readers are advised to visit the respective event's website regularly for the latest update.*

SOUTHEAST·ASIA CONSTRUCTION *is proud to host a conference on*

'THE FUTURE OF CONSTRUCTION EQUIPMENT IN SOUTHEAST ASIA'

How the integration of telematics, electric and autonomous equipment will shape Southeast Asia's construction industry

Date: 18 September 2024 (Wednesday) | **Time:** 14.00 – 17.00
Location: Hall 12, IMPACT Exhibition and Convention Centre, Bangkok, Thailand (in partnership with BCT Expo 2024)

Speakers

Latest developments in concrete paving equipment and their potential for Southeast Asia

Kelly Steeves, Managing Director – Asia Pacific, Gomaco

Digital construction in Malaysia

Ts. Lim Hui Yan, Executive Director of Gamuda Engineering and Alternate Council Member of Master Builders Association Malaysia

Market outlook and demand for smart trenchless technology in Southeast Asia

Gregory Clayton, Infrastructure Solutions Manager, Vermeer Asia Pacific

Panel Discussion: Challenges and opportunities for smart construction equipment in a market landscape impacted by rising costs, labour shortages, tight timelines, and strict health and safety protocols while adhering to sustainable practices.

Registration to the conference is free of charge. Due to limited seats, kindly ***register by 30 August 2024***. Your submitted information will be shared with the organiser of BCT Expo 2024 to generate a visitor pass to the exhibition.

Conference Partners

BCT BUILDING CONSTRUCTION TECHNOLOGY EXPO 2024

IMPACT MUANG THONG THANI

Enquiry: info@tradelinkmedia.com.sg | BCT Expo: www.bct-construction.com

Scan to register for conference

Korea International Construction & Industrial Safety Expo returns in Oct 2024; exhibitor registration now opens

The sixth edition of Korea International Construction & Industrial Safety Expo (K-Con Safety Expo) will be held from 16 to 18 October 2024 at the Korea International Exhibition Centre (KINTEX) in Goyang, South Korea.

Covering 54,000 sq m of exhibition space, the event serves as a platform to connect contractors and construction companies seeking construction safety solutions, smart safety systems and advanced safety technologies.

This year, there will be an Overseas Buyer Export Consultation Meeting targeting international construction and industrial safety buyers. A special operation of 'Advanced Safety Industry Section' will also be conducted, applicable to various construction and industrial sites, to offer broader networking opportunities for buyers and participating companies.

Other programmes at the event will include the Construction Safety Leaders Forum, Construction Safety Practitioners Association Buyer Consultation Meeting, and a number of seminars.

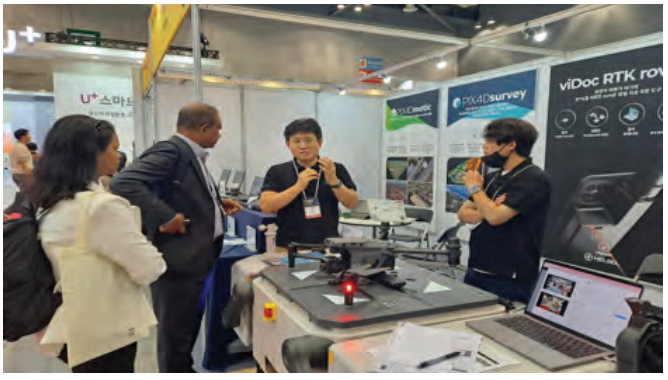
K-Con Safety Expo 2024 is supported by several government agencies such as the Ministry of Employment and Labour, as well as over 40 construction and safety-related organisations. According to the organiser, the Serious Accident Punishment Act for workplaces with five or more employees – which will be implemented in South Korea from this year – will be highlighted at the event.

The organiser also shared some of the companies that will be joining the event. These include: Halder-Roemheld Korea Ltd (die carts, lifting modules, AGV, Halder lifting pins, ball lock pins, and spring plungers); Safeware (industrial-grade wearable airbags); DOIT (earthquake early warning MEMS seismic sensors, MA301+, ICU-X2 and EQ-Alarmer); Hanlim (smart safety equipment, mobile intelligent CCTVs, smart safety control systems, and smart maintenance management); Hulan (smart safety solutions, smart safety IoT devices, and smart health solutions); and Gaon Tech (wireless temporary fire suppression systems).

K-Con Safety Expo 2024 will take place in conjunction with Asia Concrete Expo & Smart Modular Construction, Korea Metal Week, Korea Auto Industry & Global TransporTech Show, and Tool Tech+Smart Welding Automation Fair.

Companies interested in exhibiting at K-Con Safety Expo 2024 may apply online until 13 September 2024. Online pre-registration for visitors is free of charge. ■

Website: www.k-consafetyexpo.com



ALL IMAGES: **The sixth edition of Korea International Construction & Industrial Safety Expo (K-Con Safety Expo) will be held from 16 to 18 October 2024 at KINTEX in Goyang, South Korea.**

INTERNATIONAL BUILT ENVIRONMENT WEEK

4 – 6 September 2024 • Marina Bay Sands, Singapore

Asia's Most Anticipated Build Environment Week

The International Built Environment Week (IBEW) is organised by BCA International, a wholly owned subsidiary of the Building and Construction Authority (BCA), in partnership with RX Singapore. Widely regarded as the most comprehensive event for the built environment in Asia Pacific, IBEW is the ideal platform for the global community to converge and share knowledge, exchange experiences and explore business opportunities.

FIND OUT HOW TO GET INVOLVED

Follow us on: @ibewsg | www.ibew.sg

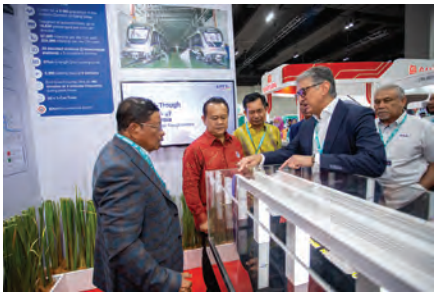
Malaysia's International Construction Week & BuildXpo 2024 event targets RM1 bil projected sales

The International Construction Week (ICW) and the Malaysia International Building and Construction Industry Exhibition (BuildXpo), collectively known as ICW & BuildXpo, will return on 22-24 October 2024 at the Malaysia International Trade and Exhibition Centre (MITEC) in Kuala Lumpur, Malaysia.

The event is poised to achieve a new milestone with projected sales reaching RM1 billion, surpassing last year's RM494.3 million, through the robust participation anticipated at the BuildXpo exhibition and targeted international business matching sessions. The latter is expected to draw approximately 25 buyers from at least 10 markets including China, Thailand, Indonesia, Singapore, Russia, Zambia, Zimbabwe, Korea, Japan and India.

In 2023, ICW & BuildXpo saw the participation of 9,470 trade visitors from 37 countries alongside conference attendees. This year, the event strives to attract over 10,000 industry professionals, with approximately 500 exhibitors covering nearly 10,000 sq m of area.

ALL IMAGES: **The ICW & BuildXpo 2024 is poised to achieve a new milestone with projected sales reaching RM1 billion, through the robust participation anticipated at the BuildXpo exhibition and targeted international business matching sessions.**



Hosted by the Construction Industry Development Board (CIDB) Malaysia and managed by Qube Integrated Malaysia, the ICW & BuildXpo 2024 is supported by the Public Works Department (JKR) and other associations, including the Association of Consulting Engineers Malaysia (ACEM), the Chartered Institute of Building, and the Malaysian Institute of Architects (PAM).

Themed 'Envisioning the Future of Construction', the event will highlight critical industry gatherings such as the Construction Outlook Summit 2024 and the Construction Dispute Resolution Conference, among others.

"The vitality of the construction industry lies in its capacity to attract and empower a dynamic influx of talent," said Dato Sri Alexander Nanta Linggi, Malaysia's Minister of Works. "With the pressing need for modernisation amidst rapid technological advancements, ICW emerges as a vital platform, illuminating the myriad career avenues within the sector for the younger generation."

He added, "In this digital era, the engagement of today's youth is paramount; their innate technological prowess and innovative drive hold the potential to revolutionise construction methods, sustainability practices, and safety standards."

BuildXpo 2024, the exhibition component of ICW, will showcase a wide range of products and services across various sectors, including construction technologies, machinery and equipment, software, industrialised building systems (IBS), materials, smart building systems, automation solutions, and services. It will also spotlight innovative start-ups within the construction realm.

Dato' Sr Mohd Zaid Zakaria, chief executive of CIDB Malaysia, further pointed out that the theme 'Envisioning the Future of Construction' involves "embracing key success factors such as productivity, competitiveness, professionalism, safety, quality and sustainability. We invite industry participants to ICW 2024 to discover cutting-edge products, methodologies and services, and seize opportunities to enhance business networks and collaborations."

"Our focus is on elevating this year's event by integrating the Summit, leveraging advanced technologies, and creating a dynamic platform for knowledge sharing and business networking," said Richard Teo, executive chairperson of Qube Integrated Malaysia. "Collaborations with industry giants such as Gamuda, MRCB, Petronas and YTL Cement have been instrumental in our achievements." ■

Website: www.buildxpo.com.my

PHILCONSTRUCT MINDANAO

INCORPORATING: HVAC/R MINDANAO

September 5 – 7, 2024

SMX SMX Convention Center Davao, SM Lanang Premier

PHILCONSTRUCT CELEBRATING 35 YEARS

INCORPORATING: HVAC/R PHILS.

November 7 – 10, 2024

SMX SMX Convention Center Manila

World Trade Center

PHILCONSTRUCT LUZON

INCORPORATING: HVAC/R LUZON

April 3 – 5, 2025

SMX SMX Convention Center Clark, Pampanga

PHILCONSTRUCT VISAYAS

INCORPORATING: HVAC/R VISAYAS

June 19 – 21, 2025

Waterfront Cebu City Hotel & Casino, Lahug

For interested exhibitors, contact info@philconstructevents.com

Connect with us

philconstructevents.com | Philconstruct Expo | @philconstruct

Organized by PCA

Co-Organized by ACEL, PSME

Event Managed by PHILCONSTRUCT, GLOBALINK MP

Programs & Beneficiaries Supporter Ayala Foundation

IPAF releases Global Safety Report 2024

The International Powered Access Federation (IPAF) has released its Global Safety Report 2024. This year marks a significant milestone as the report transitions to a digital-only format, aligning with IPAF's three-year strategic plan focused on digitisation and sustainability.

The IPAF Global Safety Report 2024 examines the primary causes of major injuries and fatalities during the operation of powered access machinery, including mobile elevated work platforms (MEWPs), mast climbing work platforms (MCWPs) and construction hoists (CH). Despite being one of the safest methods for enabling work at height, powered access equipment requires effective management, supervision and operator involvement to maintain high safety standards.

IPAF's move to a digital-only report is designed to enhance accessibility for its global audience while advancing its sustainability objectives. This transition lays the groundwork for future editions, reflecting IPAF's commitment to continuous improvement and innovation. IPAF collaborates closely with its network of members, manufacturers, rental companies, distributors, contractors and users to identify emerging safety trends and challenges, driving targeted guidance and training initiatives.

The production of the Global Safety Report follows a strict protocol to ensure quality. Each phase, from inception within the safety & technical department to rigorous evaluations by the International Safety Committee (ISC), aims to produce an informed, reliable and comprehensive report. The report details data on industry sectors, incident locations, countries where incidents occurred, and incidents by machine categories, with a focus on fatal and major incidents.

Since IPAF began collecting accident data in 2012, there has been a significant increase in reported incidents, signalling heightened awareness and reporting around the world. Despite notable advancements in 2023, there is still much work to be done to maintain momentum and continually improve safety standards.

Reflecting on the release, Alana Paterson, chair of the IPAF International Safety Committee and head of health, safety & environment at Taylor Woodrow, said, "As a safety professional with over 20 years of experience in powered access equipment, I affirm that using powered access remains one of the safest methods for working at height, despite the incidents we experience. The global volume of machine movements far exceeds the number of incidents, yet serious injuries involving mobile elevating work platforms, construction hoists and mast climbing work platforms still occur. ■

Website: ipaf.org/gsr2024

New training courses for construction hoist installer and advanced installer

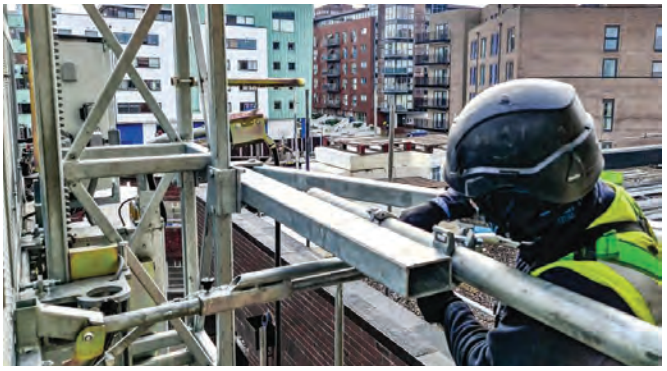
The International Powered Access Federation (IPAF) has launched its new Construction Hoist (CH) Installer and Advanced Installer training courses. These are designed to equip operatives with the necessary knowledge and skills to safely install, maintain, examine and dismantle construction hoists, adhering to legal obligations and industry best practices.

Candidates must be able to demonstrate evidence of a minimum of six months of supervised experience as a hoist installer. Throughout the course, operatives will learn:

- How to confidently and safely install, maintain, examine and dismantle any type of construction hoist in line with legal obligations.
- An understanding of safe systems of work (SSoW), including risk assessments and method statements.
- In-depth technical theory and supervised on-site practice for installation and dismantling of hoists.

There are three sub-categories of construction hoists (CH): transport platform hoists (TPH), designed to carry both people and work materials; goods hoists (GH), designed to carry only work materials; and passenger hoists (PH), designed to carry both people and work materials.

The Installer Course is a minimum of five days, while the Advanced Installer Course is a minimum of three days. Candidates are required to have at least twelve months of experience between



completing the Installer and Advanced Installer courses. The duration of each course is tailored to individual experience and needs, offering flexibility to fit training around work commitments.

Successful candidates will receive a digital certificate via the IPAF ePAL app. Both the Installer and Advanced Installer certificates are valid for five years.

Angel Ibañez, IPAF's manager for MCWP and related products who devised the course curriculum, said, "IPAF created this course with input from a committee of esteemed industry experts to provide a framework of training which draws upon the latest developments, safety guidance and legislation." ■

BEX ASIA
The Premier Built Environment Expo

4-6 September 2024
Marina Bay Sands, Singapore

The Future of Built Environment

Innovation • Digitalisation • Sustainability

JOIN US FOR 3 DAYS OF SOURCING, LEARNING AND NETWORKING AT THE PREMIER BUILT ENVIRONMENT EXPO IN S.E.A. – A MUST-ATTEND EVENT FOR ALL ARCHITECTS, CONTRACTORS, DEVELOPERS, FACILITY MANAGERS, ENGINEERS AND MORE

REGISTER YOUR INTEREST

Organiser
RX In the business of building businesses

Strategic Partner
Building and Construction Authority

An Event of
IBEW

An Initiative Under
BuildSG

Visit bex-asia.com to find out more

New Liebherr NC-LH 12-55 luffing jib crane ideal for inner-city areas

Liebherr has introduced a new hydraulic luffing jib crane, the NC-LH 12-55, which is targeted at markets outside Europe. With a minimal working radius of just 3 m and an out-of-work position of 10 m, this model is ideal for inner-city construction sites. It has a lifting capacity of up to 12 t and the ability to lift up to 2,450 kg at its jib head.

"We provide a set-up that's strong in all aspects, from transport and assembly through to operation, and can offer our customers an outstanding overall concept for their sites," said Markus Kinateder, product manager at Liebherr-Werk Biberach GmbH.

The NC-LH 12-55 can be adapted to everyday conditions on site and requires very little space. This is because the crane can be installed in lift shafts, features a reduced out-of-service position and minimal swing radius, and the cabin is mountable on either side (left or right-hand side) to meet individual project needs.

A lift shaft installation with subsequent internal climbing can be performed using the 16 EC 240 tower system. So the crane can be centrally positioned on site where it can lift up to 2,450 kg at its jib head at maximum radius. Its minimal working radius of just 3 m also helps to ensure that all areas on site can be covered from a central point.

Another option alongside the slim 16 EC 240 is the widely used 21 HC 290 tower system, which enables high hook heights and installation of the EasyUp 200 crane driver elevator. Both tower systems come prepared for climbing inside and outside buildings. Combining these two systems together with a transition tower section makes it possible to achieve cost-efficient, high tower heights.

With the NC-LH 12-55, several cranes can be positioned closer together on site. This allows more units to fit into the available space as and when required. A reduced out-of-service position of 10 m for jibs 45 m or longer makes it all possible. The jib can be extended in 5 m increments. At maximum tower height, the out-of-service position measures up to 14.6 m. The counter-jib has a swing radius of just 7.9 m and its ballast blocks are stackable.

Easy transportation

Transporting the crane into the city and through inner-city environments can be carried out easily. Four trucks or containers are enough to transport the NC-LH to its next job location. With the jib width being just 1.15 m, three sections fit onto a standard truck or in one container. The jib end section can be slid into the counter-jib, and all platforms and rails can stay attached to the counter-jib indefinitely. The hoist unit is also ready installed on the jib, meaning it stays in place during transport and is protected as well. All of this saves assembly time.

The slewing platform and central unit can either be lifted onto the truck pre-assembled or part by part ready for individual assembly steps. The choice depends on which mobile crane is available for the later assembly of the components, which can weigh up to 8 t. A smaller mobile crane can be used for lifting component assemblies, while a more powerful mobile crane is capable of handling the pre-assembled jib and counter-jib unit in a single lift to save time. The crane's jib can be completely pre-assembled on the ground. Even the hoist rope and hook block can be reeved ready for use so that working at great height isn't required.

ABOVE: **The new Liebherr NC-LH 12-55 hydraulic luffing jib crane is designed for markets outside Europe. This model has a lifting capacity of up to 12 t and the ability to lift up to 2,450 kg at its jib head.**

LEFT: **With a minimal working radius of just 3 m and an out-of-work position of 10 m, the NC-LH 12-55 luffing jib crane can be adapted to inner-city construction site conditions.**

Liebherr's luffing jib cranes are suitable for jobsites involving heavy components and high hook heights. The luffing system enables fast and precise luffing in under 90 seconds. Plus, the jib can be adjusted safely and at controlled speed with a load on its hook. Load-Plus is now available for luffing jibs thanks to the launch of the new crane. A load increase of up to 26% can be achieved at the touch of a button for particularly heavy one-off lifts.

Furthermore, the NC-LH 12-55 is also equipped with the new Tower Crane OS operating system. An easy-to-view menu bar ensures quick navigation and the user interface can be customised to suit different users. ■

Website: www.liebherr.com

Part of: Indonesia Energy & Engineering Series

Platinum Sponsor: SANY

A PAMERINDO INDONESIA TRADE EVENT

CONSTRUCTION INDONESIA

CONCRETE SHOW

SOUTH EAST ASIA | INDONESIA

11 - 14 SEP 2024

Jakarta International Expo - Kemayoran, Indonesia

www.constructionindo.com

SCAN HERE TO PRE REGISTER

Advancing Industrial Sustainability

The 24th International Construction Structure, Building Technology, Engineering Procurement and Equipment Exhibition

Co-located with : MINING INDONESIA, OIL&GAS INDONESIA, ADEXCO

Special Co-located Shows : GIFA INDONESIA, METEC INDONESIA

Media Partner : SOUTHEAST-ASIA CONSTRUCTION

Organised by: PAMERINDO INDONESIA International Specialised Exhibitions, informa markets

Sustainable Events: This event is powered by Renewable Electricity

Dingli launches T-series articulated boom lifts with modular design

Dingli has launched its new T-series articulated boom lifts, which have working heights of 36, 41 and 44 m and a load capacity of 272 kg. Their maximum up-and-over clearance is 18.8 m, while the maximum below ground reach is 9.65 m.

The new T-series features a modular design, with 85% of parts being common and all diesel, electric and hybrid models being developed on the same platform, thus reducing costs for the customers.

The maximum gradeability for this new T-series is up to 45%. The chassis offers four steering modes (front and rear wheel steering, crab steering, and big U-turn). For greater flexibility, these different modes can be adjusted to suit various working sites.

Dingli said this is the only articulated boom series in its class that can be transported in standard containers. The 230° upper jib can be hooked back in transport configuration.

In addition, the T-series articulated booms adopt Dingli's one-click in-situ axle expansion system. It enables the axle to be retracted and expanded in narrow spaces, with no need to drive. There is also no tyre wear during the process.

Like the T-series straight booms, the T-series articulated booms comply with the Cat 3 safety requirements, with full redundancy of software and hardware, physical redundancy of the communication bus, dual channels and dual insurance.

With the introduction of this new T articulated boom series, which is available in nine models using diesel, electric and hybrid power, Dingli's entire T boom series is now complete, comprising a total of 18 models. ■

Website: https://en.cndingli.com

ABOVE: **Dingli's new T-series articulated boom lifts feature working heights of 36, 41 and 44 m, with a load capacity of 272 kg.**

BELOW: **The maximum up-and-over clearance for the new T-series is 18.8 m, and the maximum below ground reach is 9.65 m.**

11-13 SEP 2024

MARINA BAY SANDS

SINGAPORE

10.00AM – 6.00PM (11-12 SEP)
10.00AM – 5.00PM (13 SEP)

S+H ASIA

The 14th Occupational Safety+Health Exhibition for Asia

Concurrent Seminar

S+H ASIA Forum on Workplace Safety+Health

Safe+Scape: Driving a 360 Approach Towards Total Workplace Safety and Health
13 Sep 2024 | 9:00am – 5:00pm

REGISTER YOUR VISIT NOW!

(65) 6332 9620 osha@mda.com.sg www.osha-singapore.com

Concurrent exhibitions :

S+H ASIA Forum on Workplace Safety+Health
MEDICAL FAIR ASIA
MEDICAL MANUFACTURING ASIA
THE SINGAPORE WSH CONFERENCE 2024

Supported by:

MINISTRY OF MANPOWER
WSHCOUNCIL Tripartite Alliance for Workplace Safety and Health
SINGAPORE EXHIBITION & CONVENTION BUREAU
A+A

Held in:

SG Singapore Passion Made Possible

Organized by:

Messe Düsseldorf Asia

‘Dash 5’ upgrade for most popular Vögele paver

With a length of 6.15 m, the new Vögele Super 1800-5(i) paver is highly compact for its class and ideal for pave widths of between 2.55 and 10 m, anything from city centre measures to paving motorways. Thanks to the new ‘Dash 5’ technology, this Universal Class paver is suited to a wide range of applications, with 129 kW of power and a laydown rate of 700 t/hr.

“The Super 1800-5(i) is two steps ahead of its ‘Dash 3’ predecessors,” said Bastian Fleischer, product manager at Vögele. “We have considerably improved the user-friendliness, sustainability, economic viability and automation in this new generation of pavers.”

The ErgoPlus 5 operating system focuses on the users. Compared to the ‘Dash 3’ version, the paver operator’s console offers improved visibility, better comfort and ergonomics, and everything users need for networked road construction. Vögele has simplified the operation of individual functions, enhanced the design, reduced the construction height to increase legroom and integrated additional storage options for mobile phones or similar. Furthermore, the Super 1800-5(i) features more precision steering than its predecessor thanks to Smartwheel. The optional ‘Premium Touch’ display screen allows users to easily monitor and control existing and future digital solutions.

The Paver Access Control (PAC) function and the Light Package Plus also offer greater comfort, efficiency and safety. PAC allows users to operate the Super 1800-5(i) from the ground at the touch of a button. The control unit placed on the screed plate can be used to control all the initial steps safely and conveniently. The optional Light Package Plus provides additional security and reduces set-up times on night construction sites. The LED beamers are integrated into the roof structure and light up the whole operating width of the paver and screed area.

The Super 1800-5(i) has additional assistance and automatic functions to support users. For example, Niveltronic Plus Assist automates the laying of both crown and transverse profiles. Users simply specify the incline of a target point and the machine takes over by gradually approaching this value – which means users no longer need to gradually adjust the incline by hand. The screed width can be automatically controlled along a tensioned wire with the new Edge Control system. The automatic screed width function ensures that the edge and pave width of the screed remain constant when there is no tensioned wire at an exit or entrance.

Reduced fuel consumption and emissions

Even without the new functions, the Super 1800-5(i) features less fuel consumption and lower CO2 and noise emissions. In order to achieve this, Vögele has also reworked the drive concept. The new four-cylinder motor consumes significantly less at the same power. This is primarily due to the optimised Vögele EcoPlus low-emissions package. In particular, the speed-controlled fan has been optimised to calculate the rpm even more accurately and, in conjunction with other measures, substantially minimise noise emissions.

The reworked control of the material transport system also plays an important role in the reduced consumption and increased efficiency. The auger and conveyors now communicate with one another, ensuring that material feed is even more consistent and precisely coordinated. This avoids load peaks, saves fuel, enables an optimum head of mix, therefore allowing uninterrupted paving. In addition, the optional Power Tunnel ensures an optimum material height in front of the screed plate. The retraction and extension of the limiting plates for the auger tunnel can be controlled at the same time as the screed width adjustment.

The Super 1800-5(i) achieves optimum pre-compaction in conjunction with the AB 500 and AB 600 ‘Dash 5’ extending screeds or with SB 300 rigid screed plates. The hydraulic tamper height adjustment ensures excellent paving quality and reduced set-up times. The Dual Power Shift Tamper enables operators to set the tamper stroke easily at the touch of a button. Compared to mechanical adjustment, this saves a lot of time and is very practical, especially with changing layer thicknesses. A new guide and positioning system for fitting screed wideners and more efficient heating of the compacting systems also significantly reduce set-up times. Vögele has further achieved substantial noise level reductions through structural optimisations. ■

Website: www.wirtgen-group.com

The new Vögele Super 1800-5(i) paver with the latest ‘Dash 5’ technology is ideal for pave widths of between 2.55 and 10 m.

LEFT: **The operator’s console offers improved visibility, better comfort and ergonomics, and everything users need for networked road construction.**

BELOW: **The Super 1800-5(i) features 129 kW of power and a laydown rate of 700 t/hr.**

'24

METALCON

OCTOBER 30 - NOVEMBER 1

Georgia World Congress Center – Atlanta, Georgia

THE ONLY GLOBAL EVENT DEDICATED TO THE APPLICATION OF METAL IN CONSTRUCTION AND DESIGN

225+ EXHIBITORS SHOWCASING THE LATEST IN ROOFING, SOLAR, ACCESSORIES, FASTENERS, WALLS, FRAMING & MORE!

35+ INFORMATIVE AND PRACTICAL SESSIONS PRESENTED BY TOP INDUSTRY EXPERTS

"We come to METALCON to learn new ways to do old things. From talking to the people we buy machines from to the awesome education sessions, we always come away with great ideas to improve our business."

J. Waibel, T.T.&L. Sheet Metal

★★★★★

WWW.METALCON.COM | INFO@METALCON.COM | 617-965-0055

SCAN THIS QR CODE TO LEARN MORE & PRE-REGISTER AT METALCON.COM

Safer excavator maintenance with Enerpac cube jack lifting

Hydraulic industrial tools specialist, Enerpac, has introduced a lifting system for safer excavator maintenance. Based on Enerpac SCJ-series Cube Jacks, this solution enables lifting and holding of the entire cab, boom and arm, allowing the undercarriage to be safely removed.

During maintenance of the excavator's swing drive and bearings, the undercarriage unit must be separated from the upper body cab and arm to give access to the swing motor and multiple sets of planetary gears. Until now, this would have involved at least two service engineers jacking up the body and holding it on stands – a time consuming and hazardous practice.

The Enerpac cube jack lifting system offers a safer, CE-certified approach to removing the undercarriage. It comprises two pairs of cube jacks providing coordinated hydraulic lifting of loads up to 25 t per jack to a height of 2 m. Two cube jacks are positioned under a lifting beam at the rear of the excavator, while the other two are located under the arm's bucket lugs. Each pair of cube jacks is connected to a hydraulic pump to synchronously lift and lower the excavator body and arm.

"The excavator lifting system has been developed in collaboration with a leading excavator maintenance company looking for a safer CE-certified approach to removing the undercarriage. It automatically self-locks so that engineers can work safely under the raised cab without the need for secondary jack stands," said an Enerpac spokesperson. "It has been well received especially for its safety, secure load holding, precision lifting and lowering, and quick and easy set-up, which make it attractive to users and customers alike."

Enerpac cube jack technology has been employed in many industrial lifting applications. The SC-series Cube Jacks use a base lifting frame and self-aligning, lightweight steel cribbing blocks to provide high-capacity and stabilised lifting – offering a safer, controlled and more efficient alternative to climbing jacks with wooden cribbing.

Lloyds witness tested to 125% of maximum working load, the incremental cube jack lifting system is self-locking to support the load as each cribbing block is manually added or removed, instead of being held by hydraulic pressure. Once the mechanical lock engages, the lift cylinder retracts, and another cribbing block can be added or removed. ■

Website: www.enerpac.com

TOP RIGHT: **Enerpac cube jacks supporting the excavator cab.**
RIGHT: **Enerpac cube jacks supporting the excavator boom and arm.**

THE FUTURE OF NATION BUILDING

Partner Association iCEMA SHAPING INDIA'S TOMORROW

Joint Organizer

AEM Association of Equipment Manufacturers

MESSE MÜNCHEN

STEP INTO THE FUTURE OF CONSTRUCTION!

International Trade Fair for Construction Machinery,
Building Material Machines, Mining Machines and Construction Vehicles.

bauma CONEXPO INDIA

11 Dec. - 14 Dec. 2024

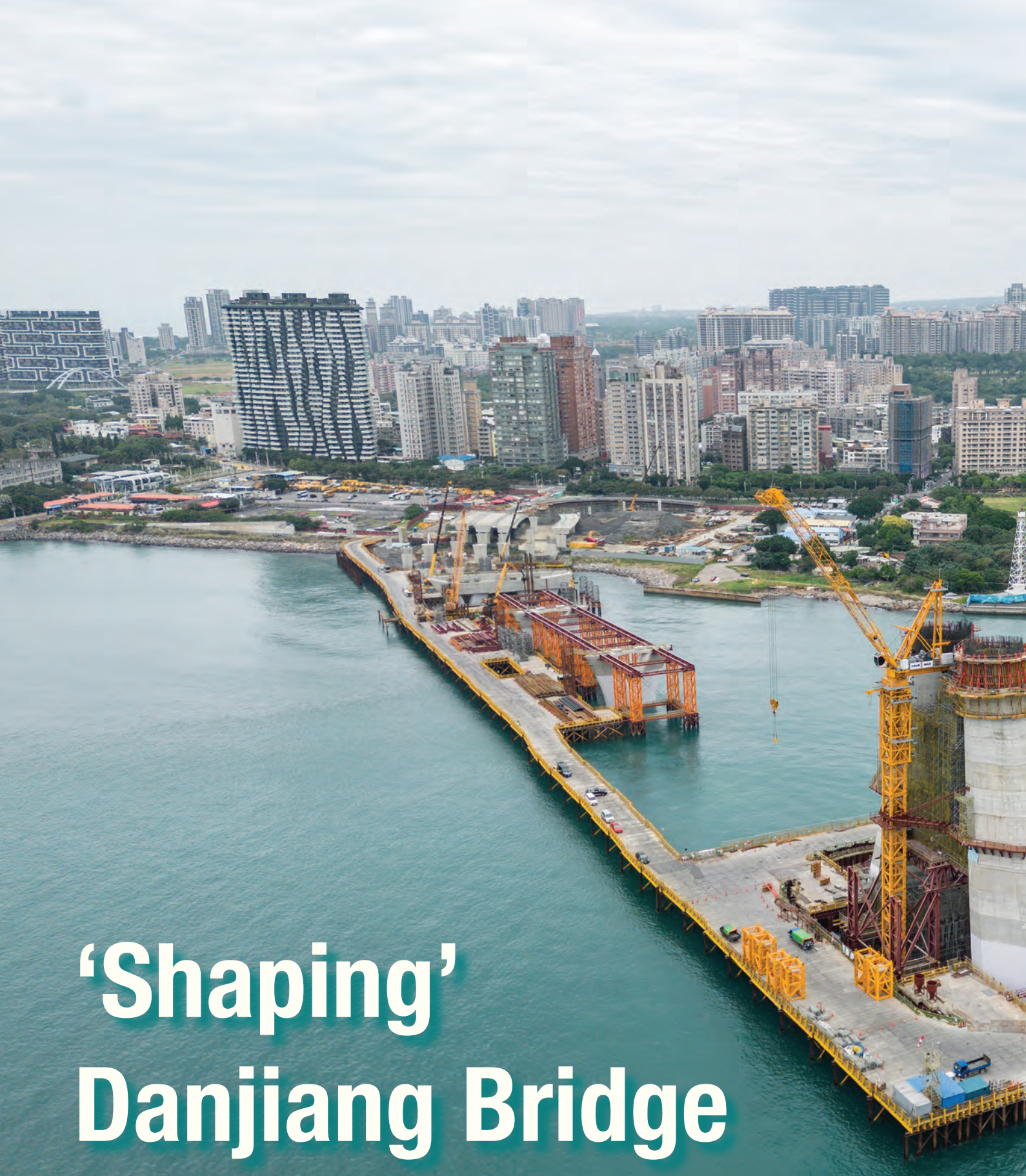
India Expo Centre, Greater Noida / Delhi NCR

SCAN TO EXHIBIT

CONTACT:

Ms. Violet Rodrigues
Tel : 022 6787 9804
Email : info@bcindia.co.in

www.bcindia.com



‘Shaping’ Danjiang Bridge

The Danjiang Bridge over the Tamsui River on the outskirts of Taipei, Taiwan, is currently under construction. The structure, designed by Zaha Hadid, is expected to be the world’s longest asymmetric cable-stayed bridge upon completion in 2025, at 920 m.

Zaha Hadid won the Danjiang Bridge International Competition back in 2015 for her design of the asymmetrical bridge. When completed, it will connect the Tamsui District in New Taipei City with the Bali District across the river – thus relieving the pressure on other transport routes.

The pylon in the centre of the bridge is a highlight. It towers into the air in the shape of an upturned 'Y' and stands, figuratively speaking, with its two legs in the river. The stay cables, which run in parallel to the top of the pylon from both sides, give the structure a futuristic appearance.

Peri was involved in the construction of the pylon by providing, among other things, a custom-designed formwork solution for concreting a total area of 18,000 sq m. To create this futuristic look, Peri developed a freeform formwork system specifically for the project to construct 3,000 sq m of the entire surface.

The complex, ever-changing shape of the pylon, which stretches upwards over 53 sections, posed the biggest challenge. Peri provided its versatile Vario, SCS and ACS systems, which could be individually adapted to the varying geometry.

Customised formwork solutions

Peri systems are characterised by their adaptability to unusual project requirements as well as their compatibility with other Peri products. Using its standard portfolio as a basis, Peri came up with a coordinated, customised solution from a

ABOVE AND LEFT: **The pylon in the centre of the bridge is a highlight. It towers into the air in the shape of an upturned 'Y' and stands, figuratively speaking, with its two legs in the river. The stay cables, which run in parallel to the top of the pylon from both sides, give the structure a futuristic appearance.**

Peri's SCS Climbing System facilitates safe working processes in the lower and upper sections of the pylon.

single source for each section of the unique pylon shape.

As such, the Vario GT 24 Girder Wall Formwork provided the ideal foundation for each section of the 200-m-high pylon. After all, this dimensionally stable formwork makes it possible to pour up to 18 m of concrete at a time.

To realise the various shapes and radii of the pylon, Peri Climbing Systems were used alongside formwork solutions. A combination of ACS and SCS was chosen to ensure that processes were quick and efficient. The SCS Climbing System made it possible to construct the inclined design at the upper and lower ends. To help construct the central, straight section, the ACS Self-Climbing System was used, which climbs up the emerging building on rails.

"Since we have been using Peri products, the project has been running smoothly. The efficiency is constantly high so that our requirements regarding the progress of the projects are fully fulfilled," said Zeng Wei-Cheng, site manager at KSECO.

Peri engineers are also on hand to advise the construction site team throughout the project. From start to finish, the experts provide support with planning and preparation, on-site construction and final completion. ■

Website: www.peri.com

All images: Peri SE

ABOVE: **A major challenge is the cross-section of the pylon that changes as the height increases – convex at the bottom and concave at the top.**

RIGHT: **The project manager from Peri and the site manager, Zeng Wei-Cheng from KSECO (on the left), are on hand to advise the construction team from the beginning to the end of the project.**

BELOW: **Two different Peri Climbing Systems – SCS and ACS – enabled fast, safe and efficient construction of the unique pylon design.**

SMOOTH OPERATOR

There's only one place you'll find the heavy hitters of concrete and masonry this January: **Vegas, baby — at World of Concrete 2025**, the largest and only annual international event dedicated to your business. Be here to mix with industry giants. Get your hands on the latest technologies revolutionizing safety, performance and speed. And learn what it takes to not only claim a piece of our industry's massive projected growth but dominate the field.

Join the power players of concrete and masonry.

Learn more about WOC

View International Events

WORLD OF CONCRETE®

informa markets

EXHIBITS: JANUARY 21-23, 2025
EDUCATION: JANUARY 20-23
LAS VEGAS CONVENTION CENTER

REGISTER AT:
WORLDOFCONCRETE.COM

On Cloud 11

Cloud 11 is a mixed-use building under construction in Bangkok, Thailand. When completed, it is expected to become Asia's largest hub for content creators and is being developed by property developer MQDC. Here, Thai contractor Thai Obayashi deploys 11 Potain tower cranes to help deliver the project.

Efficient lifting

Thai Obayashi purchased two new cranes for this large-scale development, both MCR 295 H25 luffing jib units. These are configured with 60 m jib lengths and can lift a maximum of 25 t. The remaining nine cranes were rented from Thai Potain dealer SB Siam. Work on the Cloud 11 is scheduled to continue until the end of 2024.

The rented cranes are a mix of MCH 125 and MCH 175 topless hydraulic luffing jib units, plus four other luffing jib units. Each crane was selected to match the constraints of the congested jobsite and provide productive lifting support across the whole development.

"We are pleased to have this large collection of Potain cranes leading the lifting work on a major new development in Bangkok.

OPPOSITE: **The Cloud 11 building is under construction in Bangkok, Thailand. It is expected to become Asia's largest hub for content creators upon completion.**

ABOVE: **A number of Potain tower cranes are in operation on site to help deliver the project.**

And we're excited about our acquisition of the two MCR 295 H25 cranes. Their impressive capacity, ease of assembly and adaptability make them the perfect choice for this complex project, and future ones," said Noppadol Khomthaworn, senior chief of the civil engineering construction department at Thai Obayashi.

The Potain MCR 295 features strong load charts and rapid setup capabilities. The crane is available in two versions – H16 and H25 – with maximum capacities of 16 t and 25 t respectively. There is also a 20 t capacity MCR 295 A. Maximum jib length for each version is 60 m and the Potain MCR 295 H25 can lift 2.45 t at its tip.

Thai Obayashi was founded in 1974 and is a subsidiary of the Japanese construction giant Obayashi Corporation. Its projects in Thailand include factories for global brands such as Toyota, Canon and Isuzu, as well as notable Bangkok landmarks such as the KingBridge Tower and the One Bangkok O2 building.

Bangkok-based SB Siam is the exclusive dealer for Potain in Thailand and offers full sales and support across the country as well as operating its own rental fleet. ■

Website: www.manitowoc.com

PUNGGOL DIGITAL DISTRICT

Singapore's largest mixed-use Green Mark Platinum District

The first phase of Punggol Digital District, which covers 21 ha, will open progressively from the third quarter of 2024. With integrated passive design strategies alongside advanced mechanical and electrical systems, this large-scale development will achieve 35% reduction in operational carbon emissions yearly.

JTC RECENTLY ANNOUNCED THAT PUNGGOL DIGITAL DISTRICT HAS RECEIVED THE BUILDING AND CONSTRUCTION AUTHORITY'S (BCA) PLATINUM AWARD FOR GREEN MARK DISTRICTS, WHICH RECOGNISES THE HIGHEST LEVEL OF ENVIRONMENT-FRIENDLY AND SUSTAINABLE PRACTICES IN THE MASTERPLANNING, DESIGN AND IMPLEMENTATION OF DISTRICT DEVELOPMENTS. **SO, WHAT MAKES THIS MUCH-ANTICIPATED, VIBRANT DESTINATION STAND OUT?**

JTC's eight-storey mass engineered timber (MET) building is the tallest timber industrial building in Singapore.

Apart from being environmentally sustainable, the MET was fabricated off-site, providing better construction quality control and higher productivity with 60% reduction in on-site manpower, compared to traditional construction methods.

Comprising JTC business park and the Singapore Institute of Technology (SIT) Punggol Campus, Punggol Digital District at 50 ha is the largest mixed-use Green Mark Platinum District in Singapore, which employs at-scale sustainable practices in energy efficiency, water efficiency, material and waste management, environmental planning, green buildings and transport.

With integrated passive design strategies alongside advanced mechanical and electrical systems, the district will achieve 35% reduction in operational carbon emissions yearly, equivalent to taking 4,000 cars off the road.

This large-scale project, which is masterplanned and developed by JTC with Woha as the masterplan designer and lead consultant from planning to construction, will bring 28,000 jobs, lifestyle and community amenities closer to homes. The SIT Punggol Campus, developed by SIT and designed together with Woha Architects and RSP Architects Planners & Engineers, will be able to accommodate 12,000 students. The first phase of Punggol Digital District, which covers 21 ha, will open progressively from the third quarter of 2024.

Green buildings

The district's buildings are benchmarked to the highest standards of sustainability, achieving Green Mark Platinum for 17 buildings developed by JTC and SIT. Active systems work in combination with passive design strategies to achieve thermal comfort and energy efficiency, including:

- North-south orientation to boost natural ventilation, with service spaces to buffer the east and west facades.
- High performance facades with 30% reduction in heat gain and keeping the indoors cool.
- Maximising natural daylighting with smart lighting controls.

Additionally, Platinum Super-low Energy Certification was awarded for three buildings – JTC's mass engineered timber (MET) building, SIT's MET food court and multi-purpose hall. These high energy-efficient buildings will achieve at least 40% energy savings.

JTC's eight-storey MET building is the tallest timber industrial building in Singapore. It achieves an embodied carbon performance of 15 kg CO_2e / sq m, which is 98% lower than BCA's benchmark (1,000 kg CO_2e / sq m) for non-residential buildings. Timber used for the building construction was sourced from sustainably managed forests, where new trees would be continuously planted to replace those that are harvested. Apart from being environmentally sustainable, the MET

was fabricated off-site, providing better construction quality control and higher productivity with 60% reduction in on-site manpower, compared to traditional construction methods.

SIT's food court adopts hybrid cooling and has a building integrated photovoltaic (BIPV) roof that generates renewable energy. The multi-purpose hall adopts passive displacement ventilation for efficient cooling and uses high performance glass on the windows extensively to achieve high solar heat reduction.

Integrated estate infrastructure

Within the district, estate infrastructure is planned upfront to be centralised and integrated beyond the building-level for resource optimisation. Taking a layered masterplan approach, the infrastructure and services layer in the district is fully inter-connected underground, which also optimises land use.

Solar photovoltaic (PV) panels are installed across multiple rooftops, producing over 3,000 MWh of clean energy annually, equivalent to the annual energy consumption of 11,000 three-room HDB flats.

The district will house Singapore's first urban district-level smart grid, a living lab where companies can come and test their systems in an operational business park setting. Integrating solar energy with the smart grid enables peak shaving, a strategy for reducing the energy consumed during peak demand on the electrical grid, and ensures reliable and continuous energy supply to the district.

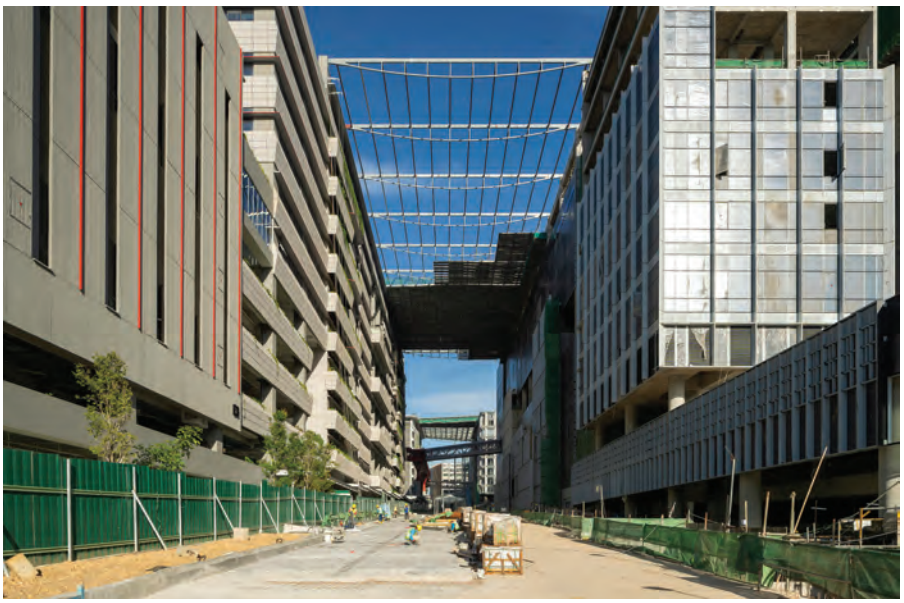
Punggol Digital District tenants and visitors can look forward to participating in the Singapore national electricity market through the onboarding of their electric vehicles, or in-house energy storage systems. Sanitised consumption data and profiles could be made available for the co-creation of other energy-related use cases, potentially supporting district-level energy demand reduction, gamification and sustainability initiatives.

SIT has also partnered with SP Group to build the first multi-energy microgrid (MEMG) to be constructed on a university campus in Southeast Asia. It can integrate electricity from the national grid, renewable sources and energy storage in a unified smart energy network, to support applied learning and applied research.

Punggol Digital District features interconnected district cooling plants with a combined cooling capacity of over 30,000 refrigeration tons (RT), which improves energy efficiency through economies of scale. Built and operated by Engie, the DCS provides chilled water centrally to multiple users across all buildings in the district, including business park, office, retail, hotel/serviced residence, SIT Punggol Campus, transport facilities and community amenities. The underground plant serving JTC business park has a 4-km underground pipe network, and is expected to reduce 3,700 t of CO_2 emissions per year at full development and achieve up to 30% reduction of energy consumption compared to standard commercial buildings.

An underground pneumatic waste conveyance system is implemented at Punggol Digital District to centralise waste collection, which minimises heavy vehicle traffic, noise, pests and odours associated with traditional waste collection. Chutes for recycling have also been implemented in the buildings. All food and horticulture waste will be recycled into fertiliser using biodigestors, reducing over 3 t of organic waste per day.

In addition, JTC has layered digital technologies and smart sensors onto integrated utilities for real-time data monitoring and additional efficiencies. Data-driven smart solutions will be used to monitor and manage energy and water use as well as reduce carbon emissions. Through integration with the open digital platform, allowing communication and interaction with various systems in the



Campus Boulevard under construction. To create a place that is car-lite and fully walkable, the district's design departs from the usual city layout, with the ground level completely open to public and friendly for walking and cycling.

The district cooling system provides chilled water centrally to multiple users across all buildings in the district, including business park, office, retail, hotel/serviced residence, SIT Punggol Campus, transport facilities and community amenities.

Heritage Trail under construction. To build a highly liveable environment with regenerative landscapes, Punggol Digital District actively conserves the site's natural assets by pedestrianising the existing old Punggol Road into a 1.3 km tree-lined Heritage Trail.

district, such as the smart grid, DCS and the building management system, aspirations to push the boundaries for further energy savings of up to 20% may be achieved through artificial intelligence and machine learning.

Green transport

To create a place that is car-lite and fully walkable, the district's design departs from the usual city layout, with larger 'super blocks' instead of regular 'city blocks'. This means that the main roads are located at the edge of the district, while inside it, vehicular access roads, shared carparks and other service driveways are located fully underground. This makes the ground level completely open to public and friendly for walking and cycling.

A comprehensive network of transport infrastructure and facilities support greener mobility options. Punggol Digital District is commuter-centric and conveniently accessible with the upcoming Punggol Coast MRT station, bus interchange and new bus stops. The district has also made it easier for users to embrace a green lifestyle by providing over 1,500 bicycle parking lots and handy end-of-trip facilities like lockers and showers.

Shared carparking hubs enable the reduction of parking lots by 50% in this car-lite district. To support the transition to more sustainable vehicles, 96 electric vehicle charging lots will be available in the first phase, with electrical provisions built to ramp up to 151 lots in tandem with market demand.

Highly liveable environment

To build a highly liveable environment with regenerative landscapes, Punggol Digital District actively conserves the site's natural assets by pedestrianising the existing old Punggol Road into a 1.3 km tree-lined Heritage Trail. About 4 ha of the site's vegetation is retained and will be transformed into an accessible community park that provides a generous breathing space with recreational nodes for people. The park supports numerous ecological networks within Punggol, serving as an area of refuge for local biodiversity and a green stepping stone for wildlife.

Across the district, space for nature is created together with floor area. The district achieves 100% landscape replacement, giving back in terms of urban greenery, biodiversity and ecosystem services such as reduction of urban heat island effect.

Rooftop urban farms are also being prototyped in JTC business park for more extensive roll-out in future phases, including a new urban typology of rooftop PV canopies integrated with urban farms. This offers an innovative solution towards achieving the national objectives of energy self-reliance and food resiliency in land scarce Singapore.

What's more, the district has implemented water sensitive urban design for water management, with bioswales, raingardens and rainwater harvesting to capture rainwater for reuse as non-potable water for landscape irrigation. This would save 208,000 cu m of water annually, enough to fill 83 Olympic-size swimming pools. ■

All images: JTC

Delivering zero emissions and low noise levels, the Zoomlion ZCC850V-1EV electric crawler crane is suitable for use in urban areas, especially on projects with high environmental protection requirements.

ZOOMLION ELECTRIC CRAWLER CRANE ARRIVES IN SINGAPORE

The ZCC850V-1EV is powered by a 166.3-kWh, 550-V battery pack, which is capable of running for about eight hours or more when fully charged, depending on the application.

Antar Cranes Services Pte Ltd has announced the arrival of Zoomlion ZCC850V-1EV electric crawler crane in Singapore, available for the local market. Delivering zero emissions and low noise levels, this new model is suitable for use in urban areas, especially on projects with high environmental protection requirements.

The ZCC850V-1EV is powered by a 166.3-kWh, 550-V battery pack, which is capable of running for about eight hours or more when fully charged, depending on the application. The charging time is approximately 1.5 hours using a 100 kW charger (optional), and 4.5 hours with a 40 kW charger.

According to Zoomlion, the ZCC850V-1EV is the world's first fully electric crawler crane, featuring a Li-ion battery that can be charged up to 3,000 times and lasts for more than 10 years. The machine can also work while being charged.

The newly designed operator cab is fitted with an air-suspension seat, a working light and rear-view mirrors that give excellent visibility of the jobsite. The noise level inside the cab is below 65 dB, increasing operator comfort.

The ZCC850V-1EV has a boom length of 13-61 m, fixed jib length of 7-19 m, maximum lifting capacity of 85 t and maximum lifting moment of 363 tm. The travelling speed is up to 1.4 km/hr, with a gradeability of 30%. The crane also provides a ground pressure of 0.088 MPa and maximum slewing speed of 2.4 rpm.

Another highlight of the ZCC850V-1EV is its high energy efficiency, revealed Zoomlion. The crane's direct drive system minimises power consumption, which is around 15 kWh per hour. This is achieved through a technology that reuses kinetic energy from the winch to charge while working.

Furthermore, the ZCC850V-1EV requires lower maintenance

compared to its diesel counterpart, thus reducing operating costs for the customers. For easy control, the crane's micro-inching system has been improved, resulting in significantly enhanced positioning accuracy.

The single rope speed of H1 and H2 can reach up to 142 m/min, and the optional free-fall winch helps improve the efficiency of hoisting operations. The ZCC850V-1EV is also equipped with various safety functions. The main boom angle and load capacity can be automatically detected by the load moment limiter to ensure that the crane does not overload.

Headquartered in Singapore, Antar has been involved in crane rental business for more than two decades. The company's fleet consists of crawler cranes, crawler tower cranes, crawler telescopic cranes, rough terrain cranes and all-terrain cranes. The machines have been deployed in a wide range of projects across the country, including land reclamation works, industrial developments, commercial and residential buildings, as well as major infrastructure projects, among others. ■

Website: www.jpnelson.com.sg

TOP AND ABOVE: **The Zoomlion ZCC850V-1EV has a boom length of 13-61 m, fixed jib length of 7-19 m, maximum lifting capacity of 85 t and maximum lifting moment of 363 tm. The travelling speed is up to 1.4 km/hr, with a gradeability of 30%.**

SUBSCRIPTION FORM

Email your order to:
yvonne.ooi@tradelinkmedia.com.sg

PRINT

Please (√) tick in the boxes.

☐ Southeast Asia Building
Since 1974

☐ Southeast Asia Construction
Since 1994

***1 year** (6 issues) per magazine*

Singapore	○ SGD$70.00
Malaysia / Brunei	○ SGD$120.00
Asia	○ SGD$180.00
America, Europe	○ SGD$220.00
Japan, Australia, New Zealand	○ SGD$220.00
Middle East	○ SGD$220.00

DIGITAL

Bathroom + Kitchen Today
Since 2001

Bathroom + Kitchen Today
is available on digital platform.

http://bkt.tradelinkmedia.biz

Lighting Today
Since 2002

Lighting Today
is available on digital platform.
To download free PDF copy,
please visit:
http://lt.tradelinkmedia.biz

Security Solutions Today
Since 1992

Security Solutions Today
is available on digital platform.
To download free PDF copy,
please visit:
http://sst.tradelinkmedia.biz

PRINT

Singapore Interior Design Directory (SIDD)
Since 2023

Scan QR code to order

** Only for delivery within Singapore.*

Personal Particulars

Name: _____

Position: _____

Company: _____

Address: _____

_____

Tel: _____ E-Mail: _____

IMPORTANT

Please commence my subscription in _____ (month/year)

Professionals (choose one):

☐ Architect ☐ Landscape Architect ☐ Interior Designer ☐ Developer/Owner
☐ Property Manager ☐ Manufacturer/Supplier ☐ Engineer ☐ Others

☐ Bank transfer payable to:
Trade Link Media Pte Ltd

Bank Details

Account Name:	Trade Link Media Pte Ltd
Account Number:	033-016888-8
Name of Beneficiary Bank:	DBS Bank
Address of Beneficiary Bank:	12 Marina Boulevard, DBS Asia Central, Marina Bay Financial Centre Tower 3, Singapore 018982
Country:	Singapore
SWIFT Address/Code:	DBSSSGSG

☐ PAYNOW to:
Trade Link Media Pte Ltd

PAYNOW option is applicable for **Singapore companies only**.

Company Registration Number: 199204277K

* GST inclusive (GST Reg. No: M2-0108708-2)

COMPACT AND VERSATILE ROCKSTER R700 CRUSHER

The Rockster R700 tracked impact crusher is suitable for a wide range of materials. Whether concrete, asphalt, or natural stone, the machine can process them efficiently, delivering good quality output and consistent results. The R700 is ideal for use in recycling operations as well as in construction and demolition projects globally.

This model has a capacity of up to 150 t/hr. With two hydraulically fully adjustable aprons working independently from one another, and the option to variably adjust the crusher speed, the size of the final product can be highly optimised.

ABOVE AND BELOW: **Designed for the global market, the Rockster R700 tracked impact crusher is ideal for use in recycling operations as well as in construction and demolition projects. The machine is seen here working on a jobsite in Lithuania.**

The Rockster R700 weighs only 22.8 t with the screening system. The transport dimensions for such a machine are 14.10 m in length, 2.52 m wide and 3.10 m high, making it very easy to move between jobsites.

The compact size means the crusher is not only convenient to transport, but can also be manoeuvred into tight spaces. So, it is a perfect choice for urban construction projects and remote locations where space and accessibility are limited.

Cost-effective solution

The robust construction of the crusher guarantees long-term durability, minimising the need for frequent repairs and replacements. These benefits collectively contribute to lower overall operating costs, making the R700 a cost-effective solution for companies looking to enhance their crushing operations or expand their business into contract crushing.

The R700 features easy access to the engine compartment,

resulting in swift and efficient maintenance tasks to minimise downtime. Rockster's diesel-hydraulic concept is also something that most of the machine operators are familiar with. This simplified maintenance process ensures that the R700 remains in excellent working condition and provides reliable performance throughout its lifecycle.

The Rockster impact crusher's blow bars can be used on both sides, which extends the life of the wearing parts and at the same time reduces maintenance intervals. Depending on the material being processed, the hardness of the blow bars can be individually selected, allowing for maximum performance in various working conditions.

Hydrostatic drive is at the heart of Rockster's crushing concept. It enables the engine to run at optimal range while individually adjusting the rotor rpm (0-850 rpm) set to the crushing job. Overload protection is an automatic system that senses an overload at the inlet of the impactor, thus preventing possible damage.

In addition, the double-functional return or stockpile belt brings back the oversize into the hopper or stacks it as a second end-product. The central control unit with a radio remote control also makes the operation of the crusher simple and intuitive. ■

Website: www.rockster.at

TOP AND ABOVE: **With its compact size, the R700 can easily be transported between jobsites and manoeuvred into tight spaces.**

LEFT: **The R700 has large and accessible openings, ensuring swift and efficient maintenance tasks to minimise downtime.**

MAPEI'S SOLUTIONS FOR TALL BUILDINGS

The number of tall buildings in cities across Asia and globally is constantly growing. The issues at stake are many and 'weighty': constraints imposed by the need for more sustainable buildings, the rapid innovation of techniques and materials, the problems of conservation and change of usage, and the acceptance of this type of building by citizens, to name a few.

Over the years, Mapei has developed various solutions for tall building projects around the world. For the exterior applications, the company offers products for waterproofing foundations; formulating concrete with admixtures; coating floors in parking areas; waterproofing roofs; concrete repair; structural strengthening; coating facades; thermally insulating walls; and installing ceramic tiles on facades.

For the interior applications, Mapei offers products for waterproofing substrates; installing ceramic tiles on walls and floors; installing wooden floors; sealing joints; installing resilient and textile floorings; soundproofing substrates; coating interior walls; structural strengthening; and laying cementitious or resin floors.

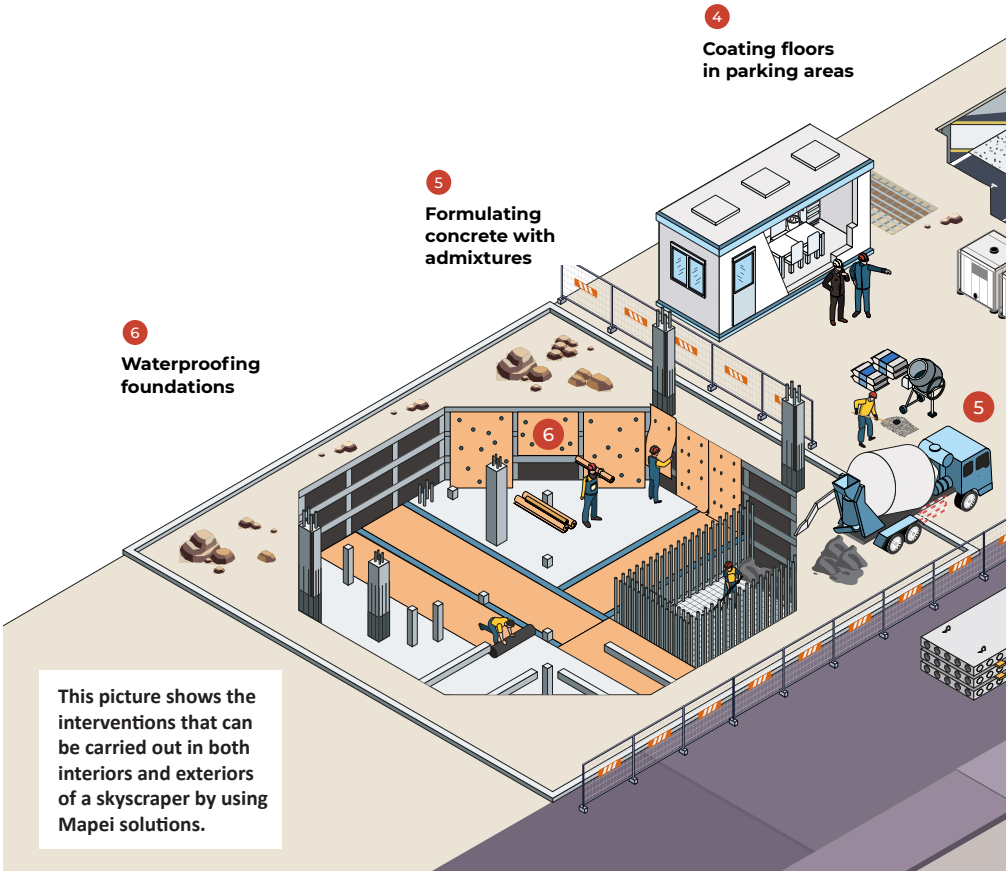
Iconic skyscrapers

The well-known 452 m Petronas Twin Towers in Kuala Lumpur, Malaysia, which opened in late 1990s, was built with the help of Mapei. The company was engaged to supply products for waterproofing substrates and installing ceramics, mosaics and stone.

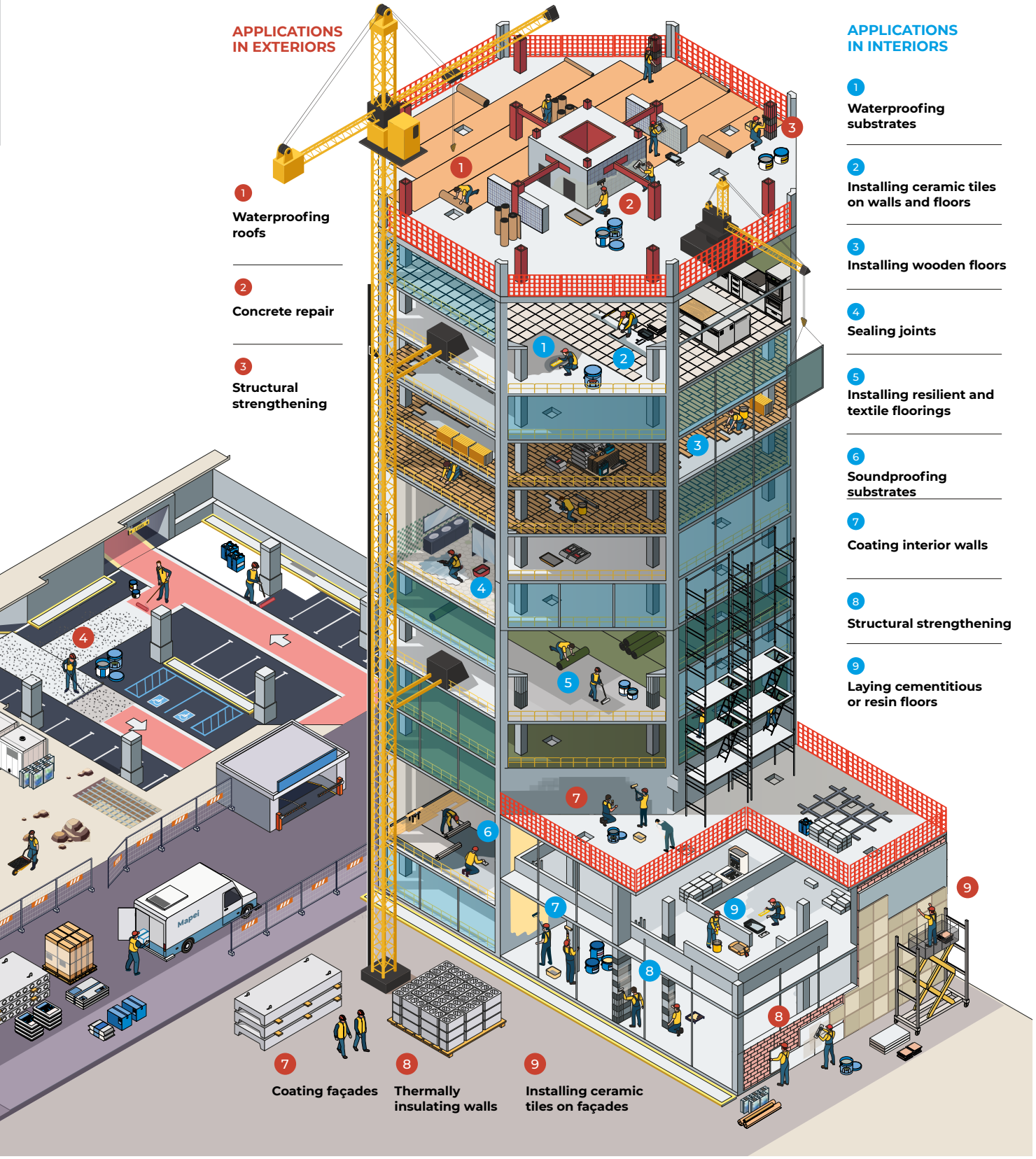
Mapei was also involved in the construction of Marina Bay Sands in Singapore between 2008 and 2010, where the company provided solutions to repair concrete, waterproof substrates and install stone floorings.

At the Hilton Tashkent City Hotel in Tashkent, Uzbekistan, Mapei supplied a range of systems for the Serenity Spa facility. Here, ceramic and porcelain tiles were installed using Adesilex P10 cementitious adhesive, Keracolor FF and Ultracolor Plus cementitious grouts and Kerapoxy Design epoxy grout for joints.

More recently, Mapei took part in the construction of YTL BB Tower in Kuala Lumpur. In this project, the company's systems – Kerabond Plus, Kerabond T+ Isolastic 50 and Keraflex Maxi S1 – were used to install ceramic tiles *(see box story*



This picture shows the interventions that can be carried out in both interiors and exteriors of a skyscraper by using Mapei solutions.


APPLICATIONS IN EXTERIORS
1 Waterproofing roofs
2 Concrete repair
3 Structural strengthening
APPLICATIONS IN INTERIORS
1 Waterproofing substrates
2 Installing ceramic tiles on walls and floors
3 Installing wooden floors
4 Sealing joints
5 Installing resilient and textile floorings
6 Soundproofing substrates
7 Coating interior walls
8 Structural strengthening
9 Laying cementitious or resin floors
7 Coating façades
8 Thermally insulating walls
9 Installing ceramic tiles on façades

on 'Sustainable solutions for YTL BB Tower in Malaysia').

In Dubai, UAE, Mapei products were chosen for the installation of ceramic tiles, natural stone and wood at the Armani Hotel inside the world's tallest building, Burj Khalifa.

For One Za'abeel skyscraper in Dubai, Mapei provided its Adesilex P7 to install 98,000 sq m of porcelain tiles, including in areas exposed to high levels of traffic. Kerabond T was used to bond 39,000 sq m of small-size porcelain tiles and Ultracolor Plus was used to grout joints on more than 137,000 sq m ceramic coverings. To address the needs of high-tension areas, Mapeguard UM 35 anti-fracture and uncoupling membrane has been employed, covering an area of 5,220 sq m to prevent cracks and ensure the durability of the installed ceramic surfaces.

Other iconic projects in which Mapei was involved include the Empire State Building in New York (USA), the Vertical Forest and Allianz Tower in Milan (Italy), the Helea Tower in Puebla (Mexico), and more. ■

Mapei has been involved in iconic tall building projects around the world, such as the Petronas Twin Towers in Kuala Lumpur, Malaysia (above) and the One Za'abeel in Dubai, UAE (right).

Sustainable solutions for YTL BB Tower in Malaysia

The YTL BB Tower in Kuala Lumpur, Malaysia, rises to a height of 179 m. The 42 floors of the building serve as the new head office of YTL, a Malaysian company operating in the infrastructure, construction, hospitality, cement production, real estate and e-commerce sectors in several Asian countries (Singapore, Japan and China), Australia and the UK.

The lower floors of the skyscraper comprise a large entrance hall and a conference suite embellished with a large garden, while the offices are located on the upper floors. For both environments, construction materials that would guarantee excellent mechanical characteristics, durability and a pleasant aesthetic effect were employed. These included complete Mapei systems which were selected for the installation of large-size floor and wall ceramic tiles, both internally and externally.

Because of its workability and perfect adhesion to substrates, Kerabond Plus was used to improve adhesion cementitious adhesive with extended open time to bond 300 mm x 600 mm and 600 mm x 600 mm floor tiles, such as those in the large lobby on the ground floor.

With the Kerabond T+ Isolastic 50 system, which consists of non-slip cementitious adhesive and elasticising latex additive, 1,200 mm x 600 mm tiles were bonded to the walls of the lifts and the lobby. When mixed with adhesive, the latex helps improve its adhesion to substrates and its deformability and waterproofing properties.

RIGHT: **The YTL BB Tower rises up in the Jalan Bukit Bintang business district of Kuala Lumpur.**

Mapei products were used at the Armani Hotel inside the world's tallest building, Burj Khalifa in Dubai (pictured).

Mapei also took part in the construction of Marina Bay Sands in Singapore (left), and the Serenity Spa facility at the Hilton Tashkent City Hotel in Tashkent, Uzbekistan (below).

Note: Some products mentioned in this article are available in the Singapore market. Please contact the customer service representative at Mapei Far East or visit the company's website (www.mapei.com.sg) for more information.

Meanwhile, Keraflex Maxi S1 deformable, non-slip cementitious adhesive with extended open time was chosen to bond 600 mm x 600 mm ceramic tiles on the rest of the internal walls. This product comes with low dust technology and, thanks to its high thixotropy, is particularly suitable for bonding large-size ceramic and stone tiles: it may be applied on vertical surfaces without slumping or allowing tiles to slip, including heavy and large-size tiles.

What's more, Keraflex Maxi S1 features very low emission of volatile organic compounds (VOC), is certified EMICODE EC1^{Plus} by the German association GEV and helps obtain important credits for achieving the LEED certification. So, using this product also played a part in reducing the environmental impact of the entire development. Mapei participated in the project from 2018 to 2019. ■

RIGHT AND BELOW: **At the YTL BB Tower, Mapei systems were employed for the installation of large-size floor and wall ceramic tiles, both internally and externally.**

Image: David Yeow

Article courtesy of Realtà Mapei International 99

ADVERTISERS' INDEX

MESSE MÜNCHEN

OUR COMPETENCE, YOUR INNOVATION.

bauma CHINA, Shanghai, SNIEC
November 26–29, 2024

SHAPE THE INDUSTRY AND BE AN EXHIBITIOR

Apply now !

International Trade Fair for Construction Machinery, Building Material Machines, Mining Machines and Construction Vehicles.

www.bauma-china.com

bauma CHINA


PAVE YOUR BEST RIDE EVER.
THE POWER PAVER SF-3404
FULL-WIDTH | FULLY FEATURED | DOWEL BAR INSERTION
www.powercurbers.com | 704-636-5871
Power Pavers