



# Scope

PERI Singapore 30th Anniversary



Your reliable Partner since 1991.





Dear valued partners and prospective customers,

I am pleased to present to you our 2021 special edition of PERI Scope Singapore.

2021 marks a special year for PERI Singapore as we turn 30. Starting out initially in 1991 as PERI-Hory Asia Formwork Pte Ltd, we have come a long way to who we are right now - a familiar and trusted partner in the Singapore construction market.

This special edition reaches you at a time, where COVID-19 continues to impact all of us. More than a year since the start of global lockdowns, we continue to keep focused on our efforts to serve you in the best possible way. You can trust in us to accompany you as your reliable partner throughout these challenging time.

PERI Singapore is an integral part of the PERI Group. As a family owned company, we pursue long-term strategies and we want to develop our company and our markets in the long term. After more than 50 years successful growth, we know, that the crucial basis for our sound development are solid partnerships based on trust and reliability.

Stating this, we recognize that long lasting partnerships go way more than just the supply of materials. The provision of innovative formwork and scaffolding solutions paired with excellent customer service, customized engineering solutions, in-time material delivery, extensive on-site support and after-sales care are part of the comprehensive package provided by PERI Singapore.

This edition of the PERI scope showcases our journey over the past 30 years. Milestones, current projects from all segments, your PERI Singapore team and of course an outlook what you can expect from us going forward.

On behalf of PERI, I thank you for your continued trust and support throughout these years. We look forward to being of best service to you for the next 30years and beyond.

Enjoy reading!

Florian Dachs

General Manager | PERI Asia Pte Ltd



### PERI Singapore celebrates our 30th Anniversary!

2021

Officially established in 1991, PERI Singapore came a long way and has now been in the Singapore construction market for 30 years!

It has been a great honour for us. The journey was an insightful one as we've gained tremendous experience and made great partners along the way. These gathered experiences make us stronger and give us a more competitive edge. With vast experience working on high-valued iconic projects, we are proud to consider ourselves as a top formwork and scaffold supplier.



Setting up banners at the stockyard

As Covid-19 continues to impact all of us, we have taken and followed safety measures in view of our 30th anniversary celebration. Our primary focus is and remains the health and safety of our teams, customers and partners. While celebratory decorations and banners were put up in our office and stockyard, the actual physical celebration as a company had to be put to a halt temporary. We do hope that, once the circumstances allow, we are able to celebrate together with you, our valued customers.

However despite having the celebration postponed, the PERI Singapore spirit remains strong throughout the team and you can trust in us to accompany you as your reliable partner throughout these challenging time.

We would like to thank all our partners for supporting PERI Singapore throughout the years. Our partnership forged is greatly valued and appreciated. Cheers to PERI Singapore 30 and many more to come!

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3 O Years PERI Your reliable Partner since 1991. SINGAPORE



### Milestone Projects

With 30 years in the Singapore construction market, PERI Singapore has been involved in a variety of iconic projects ranging across different sectors and segments - building, infrastructure and industry. We are proud of our versatility and competence to be able to supply high quality materials to all segments.

### Marina Bay Sands

SsangYong Engineering & Construction, Korea

2009

PERI Singapore is proud to have been a part of the construction for Marina Bay Sands in 2009. SKYTABLE, ACS Self Climbing System, CB Climbing Platform and VARIO GT 24 Girder Wall Formwork were utilized for the project.



Three iconic towers begining construction

#### **Testimonial**



Mr Yoon Chul Ahn Construction Manager

We are absolutely satisfied with PERI systems and also their comprehensive service which helped us with proficient engineering, logistical needs and jobsite support to successfully implement the project.



### Oasia Downtown

### Milestone Projects

#### Contractor

Woh Hup Pte Ltd

#### Year

2013

Oasia Downtown - a breath of fresh air and welcomed greenery in Singapore's prime Central Business District area. Constructed back in 2013, the 27-storey cutting edge development was designed to be a mixed-use hotel and office space.



Oasis Downtown in early construction stage



RCS Rail Climbing System

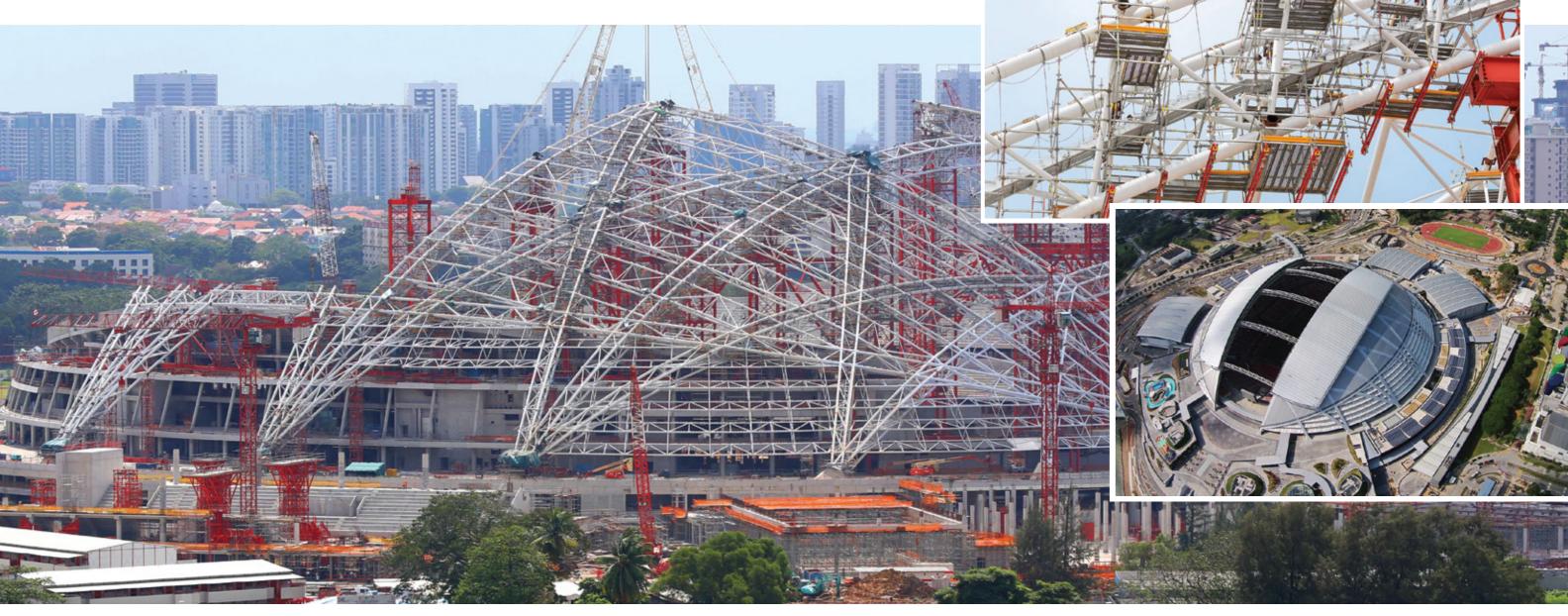


RCS P Climbing Protection Panel

RCS Rail Climbing System and RCS P Climbing Protection Panel were used in this project. The protection panels provided the site a gap-free enclosure and allowed the construction team to work safely and efficiently.

### Singapore Sports Hub

Milestone Projects





#### Contractor

Dragages Singapore Pte Ltd

#### Year

2013

The Singapore Sports Hub is a fully integrated sports, entertainment and lifestyle hub in Kallang, Singapore. Officially opened in 2014, it replaced the former National Stadium after it was demolished in 2010. PERI UP Flex was greatly utilized for this project. With advantageous features such as gravity lock, intergrated lock against lifting and high-load bearing capacities, our customer was impressed and satisfied with the system.

#### **Testimonial**



"

The PERI UP Rosett Flex has proven to be a safe, flexible and productive system which greatly supports and faciliates the installation of the structural steel roof for the stadium of the Singapore Sports Hub.

Mr Bernward Stube / Mr Abhimandran Harendran Director, Dulan Asia Pacific Pte Ltd / Project Coordinator, Yongnam Engineering and Construction

### Meet the PERI Singapore team

### Providing you the best support

#### MANAGEMENT



From left to right: Hidayat Baharin (Operations), Roel Capulong (Engineering), Esther Tay

#### Best service to our clients

#### **Living PERI values**

Ensuring our PERI values and leadership principles are filled with life in everyday's work

#### Strategy and target setting

Developing a future-proof strategy and translate into operational targets

#### **Teamwork**

Creating an atmosphere of trust and reliability



Providing best service to our clients has been our daily drive since PERI's foundation. The dedicated and committed PERI Singapore Management team strongly believes that trust and teamwork are a crucial basis to be successful. We recognize the value in each and every employee and strive to make PERI Singapore an ideal, safe, positive and conducive environment to work in.

#### **SALES**



From left to right: Billy Van Straaten (Head of Sales), Chris Tan (Senior Segment Manager), Peter Tan (Senior Segment Manager), Kerkyn Liewy (Sales Support Executive)

#### **Ensuring customer proximity**

#### Personal and professional experts

Direct contact person to manage your PERI quotation/order related queries

Liaising pre/on-going/post processes such as customer training, engineering/design, material delivery/return, order changes and final settlement

#### Profound advice and consultation

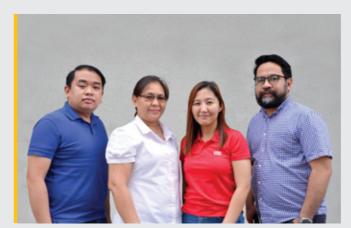
With decades of experience in the industry, be assured our Sales team will find the best and individual solution for your project demands

"

Our commitment to provide quality customer service has always been and will remain a top priority. Understanding our partner's need is crucial.

The PERI Singapore Sales Team aims to offer project specific formwork & scaffold solutions at an affordable price on time, every time. We are here to serve you, our loyal customer!

#### **ENGINEERING**



From left to right: Jason Amaquin (Design Engineer), Concepcion Rosario (Senior Design

#### **Best technical solution**

#### Individual planning and advice

Project-specific detailed planning for the use of formwork/scaffolding and structural calculations for every construction task

Implementation planning and calculate proof of stability analysis for shoring and working scaffolds

#### **Optimized solutions**

Customized formwork and scaffolding planning with site-compliant drawings and parts lists

"

Precision and flexibility is key. We are constantly motivated to present new, creative and advantageous solutions in our drawings for our partners.

With an experienced, knowledgeable and highly skilled PERI Singapore Engineering Team, be assured that the best ideal solutions are presented to you every time, for every project.

#### **OPERATIONS**



From left to right: Steiner Lai (Warehouse Manager), Hidayat Baharin (Head of Operations

#### **Ensuring a smooth process flow**

#### Logistic

Our SK7 stockyard located at Sungei Kadut provides fast and smooth logistic services

#### Optimal stock availability

Through a large rental equipment park with a tailor-made product portfolio for Singapore

#### **On-site support**

Conduct product demo and provide briefing on-site, minimizing improper handling



The PERI Singapore Operations Team strives to ensure seamless logistical processes from stockyard to site as we believe that a smooth process flow is crucial. Through our dedication and passion, we commit ourselves to serve our partners with excellent service. Getting positive feedback from our partners keeps us motivated to give our 100%!

### Your reliable partner in all segments

### **Current Projects**

#### **Building**

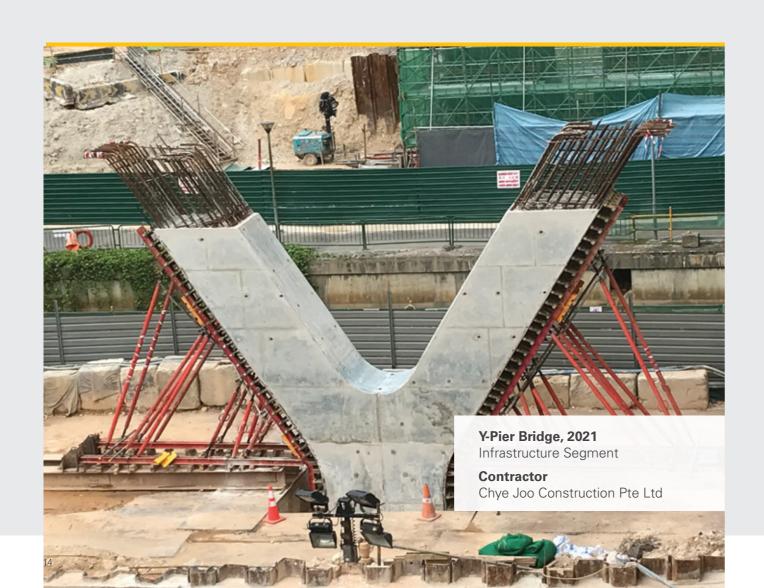
From commercial to residential high-rise projects, PERI Singapore has the right material to suit every of your project requirements. With innovative systems, work smart and achieve high productivity.

#### Infrastructure

PERI Singapore has been involved in numerous infrastructure projects. We provide formwork and scaffold materials to jobsites relating to MRT stations, expressways, bridges and tunnels.

#### Industry

PERI Singapore is well equipped with a vast range of systems and products that caters to all requirements. Large-scaled factories, warehouses and infrastructures are of no exceptions.







### Building | SIT Punggol Campus

### **Current Projects**









#### **SIT Punggol Campus**

#### Contractor

Kimly Construction Private Limited

### **Year** 2021

The new Singapore Institute of Technology campus situated in the Punggol Digital District (PDD) will be able to accommodate approximately 12,000 students.

With a sustainable design, the smart campus will have PV solar panels installed on the building's roof tops. In addition to that, a District Cooling System (DCS) will be running to provide the campus' cooling needs while at the same time, reduce carbon footprint at an estate level.

#### **PERI Solution**

- VARIO GT 24 Girder Wall Formwork for liftcore and staircase
- CB 240/160 Climbing System for external and BR Platform for internal
- ST 100 Shoring Tower as back propping

#### **Testimonial**



Mr Wu Wang Site Manager Kimly Construction Private Limited

"

Utilizing PERI systems have helped us increase productivity at the site by about 15%. Lesser manpower was needed and efficiency was improved. We are also satisfied with PERI's sales and logistic support throughout.



## Infrastructure | Y-shaped pier bridge over Punggol Waterway

### Current project



**Year** 2021

With Punggol area rapidly developing, new roads and buildings are being built now and in the coming years throughout the new town. Plans to transform a part of Punngol into a digital district has been materialised and construction is underway.

Just right behind Punggol SAFRA, a Y-shaped pier bridge is being constructed over Punggol waterway - below the LRT tracks between Sam Kee Station and Punggol Point Station. The bridge aims to support new roads being built from Sentul Crescent to Punggol Seventeenth Avenue.

An extensive amount of PERI UP Flex Shoring were utilized for access and VARIO GT 24 Girder Wall Formwork for the construction of the bridge itself.



#### PERI Solution

- VARIO GT 24 Girder Wall Formwork for pier
- PERI UP Flex Shoring for access

#### **Testimonial**



MrThu Ya Nyi Lwin Construction Manager Chye Joo Construction Pte Ltd

We are very pleased with PERI Singapore's engineering and on-site support. The teams have responded promptly with viable solutions whenever required. We are happy to say that productivity on-site has also increased by about 30% using PERI systems (as when compared to conventional formwork).

### Industry | Samwoh Smart Hub

### Current project



VARIO GT 24 Girder Wall Formwork in action





Artist impression of Samwoh Smart Hub (Image credit: Samwoh Corporation)





#### Samwoh Smart Hub

#### Contractor

Hua Siah Construction Pte Ltd

#### Year

2021

Samwoh Smart Hub – the first positive energy industrial building in Singapore.

The 4-storey building located at Kranji way aims to reduce energy consumption to its minimum and plans to offset it with on-site solar power.

The positive energy smart hub is also constructed using various types of recycled construction materials such as recycled concrete aggregates (RCA), repurposed sedimentary rocks from the Jurong Rock Cavern, M-sand and more.

Construction works commenced in Q1 2019 and was completed in Q1 2021.

#### **PERI Solution**

- VARIO GT 24 Girder Wall Formwork for bunker wall
- CB 240 Climbing System for external
- CB 160 Climbing System for internal

## Looking ahead: Expectations from PERI Singapore in the future



#### Safety | Efficiency | High Productivity

The basic requirement of all our developments is to ensure faster and safer working operations. Our products are designed so that they provide our partners with advantages regarding handling, workload reductions, enhanced safety as well as cost and personnel savings.

Efficient systems equipped with practical details are the basis for maintaining a strong position in the market over many years. Reduced material and manpower needs on-site support our clients especially in times of manpower and material shortages.



#### **Excellent Customer Service**

To provide an enhanced customer service to our partners, PERI Singapore has been conducting surveys and is constantly reaching out for feedback to further improve ourselves.

With the up-and-coming introduction of myPERI, customers can soon conveniently access drawings, brochures, sales offers, quotations and many other relevant documents anytime, anywhere, at your fingertips.



#### **Sustainability | Environmentally Concious**

Future viability as well as ecological and economic sustainability have a high priority for all our company activities.

The focal point is geared towards the best material utilization as early as in the development phase while load-optimized design and system components ensure economical use of materials. Selection and procurement of raw materials takes place at PERI with high focus on ecological sustainability.



#### Innovation | New Technology

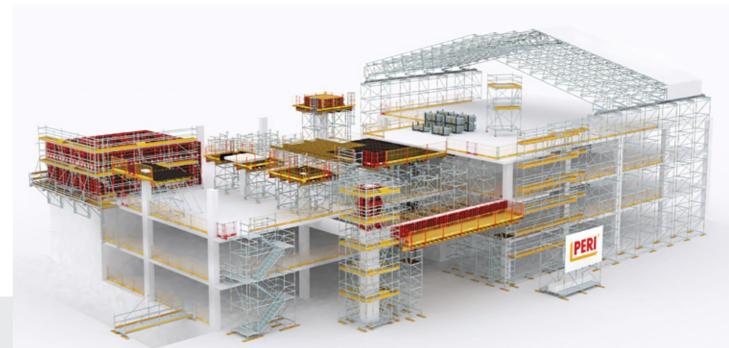
With innovation being one of our most important values, PERI has always been at the forefront in raising standards in the market by applying a holistic view on the complete construction process. Recent highlights include the first 3D-printed residential building in Europe.

We develop our systems for the widest possible range of applications. As a result, this allows maximum material utilization and avoids unused stocks of materials. Our solutions increase the economic efficiency, very often for the entire construction processes.





### Safety | Efficiency | High Productivity



#### **PERI UP Rosett Modular Scaffold**

With PERI UP Rosett, complicated geometries can be scaffolded cost-effectively, e.g. old buildings with bay windows and cantilevers. The Rosett nodes on the standards facilitate easy and safe assembly whilst the steel decks have a particularly high load-bearing capacity.

The perfectly matched system and component dimensions allow any combination of frame scaffolding with modular scaffolding. The integrated protection against lifting provides access ways of equal height and without any obstacles. The requirements regarding working safety also remain fulfilled: guardrail heights are in accordance to regulations and toe boards can be fitted from end to end.



#### Why PERI UP?

- Practically unlimited
  - Optimal adjustment possibilities regarding height, width and length
- Extremely easy to assemble
- Fast and safe assembly with the gravity lock
- Safe and fast assembly

Gravity Lock secures ledger immediately when assembled Rectangular shaped rosett prevents rolling away Integrated lock against lifting



### PERI On-Demand: Complimentary formwork demonstration at your job site



#### **PERI On-Demand**

We provide safe and quick demonstration sessions right at your door step. With PERI Product Specialists, we hold the demostration at a location to your convenience.

Get hands-on with the effectiveness and safe assembly of our systems. Learn more about labour cost-efficiency with our systems today.

PERI On-Demand is a localized formwork and scaffolding demonstration available in the Singapore market.



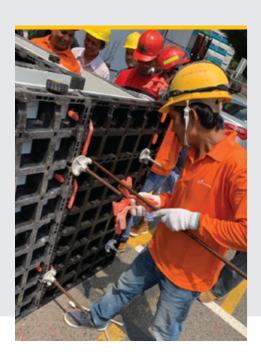
#### DUO

- Low weight max. 25 kg
- Universally applicable for Walls, Column and Slabs
- Extremely simple handling
- Quick and easy to install
- No special tools required



#### **PERI UP**

- Universal modular scaffolding
- Extremely cost effective for shoring assemblies with light-weight scaffold materials
- Enhance safety with gravity lock system
- Save cost and time with fewer components
- Flexible and adaptable modular system





Safe, fast and convenient demonstration with the highest level of working safety.

To request for a demonstration, scan the QR code and complete the online form



### Affected by manpower shortage and rising timber prices?

### Sustainability | DUO System Formwork





#### Work towards a more sustainable future with PERI

#### Zero waste production

During the production of DUO components no waste is generated. 100% of the raw materials are used in the manufacturing process.

The components of PERI DUO can be reused. Formlining can be reused up to 100 times and it can be easily replaced on the jobsite.

#### 100 % Recyclable

After the service life the DUO material can be milled by the producer and be reused for the production of new panels. In this way, a sustainable closed-loop economy is achieved.

#### The lightweight formwork for walls, columns and slabs

DUO is the innovative system formwork featuring low weight panels with simple handling. It allows for efficient forming of walls, columns and slabs using a minimum number of different system components.











Senior Site Manager Woh Hup (Private) Limited



100% recycable waste produced





< 25kg all components



100%

rust-free



> 100xformlining



1 type connection



> 400xlifecycle



The DUO system is very flexible and we saved a lot of labor and costs for a crane due to its light weight. A further advantage is that the use of DUO does not cause any noise and assembly is very easy. Our cycles are faster and we have always been meeting our deadlines. We will definitely use DUO again in future.



# PERI making waves building 3D-printed residentials around the world

### Innovative Technology



#### ■ Time and Cost Savings

The BOD2 is operated by only 2 persons and is the fastest in the world (1m/s). The construction process is automated and optimized, reducing the degree of coordination required.

#### Planning Reliability

The final planning stage takes place before the project starts and provides all parties with planning reliability from the outset. These benefits lead to time and cost savings.

#### ■ Custom Configuration

BOD2 has a modular structure and can be configured in a customised manner. It can be used both on construction sites and in factories.

#### ■ Proven Expertise and Quality

We printed the first residential building in Germany and the largest apartment building in Europe. The BOD2 is CE-certified and the cabling is IP67-certified.



Germany's first 3D-printed residential building Scan to view the



PERI is featured on Mediacorp's Channel 8.









### PERI builds Germany's first 3D-printed residential building in Beckum, Germany.

The building features a two-story detached house with approximately 80 square meters of living space per floor. PERI used BOD2 3D-printers which can move along its frame from any position within the construction and only needs to be calibrated once.

Ten months after the start of printing, the first printed single-family house in Beckum, Germany was officially opened by Ina Scharrenbach, Minister for Home, Municipal Affairs, Construction and Equality.

"Together with our Danish technology partner COBOD, the PERI team has shown that 3D concrete printing technology is ready for the market. The project in Beckum is a milestone that has set many things in motion in the industry," said Thomas Imbacher, Board Member Innovation & Marketing of the PERI Group.

"PERI has since printed the largest apartment building in Europe in Wallenhausen and the first residential building in Tempe (Arizona) in the USA. Much of what we learned in Beckum has been incorporated into these projects. The house in Beckum was the first of its kind and for PERI and all involved, this project will always remain something very special."

### PERI prints the first residential building in USA, Tempe, Arizona.

This is one of the first 3D-printed housing projects in the USA that has fully and successfully passed all regulatory approval processes. PERI is printing a single-storey detached house with approx. 160 m<sup>2</sup> of living space. According to current plans, the house will be ready for occupancy in August / September 2021.

PERI's client and partner in this meaningful project is the regional organisation of "Habitat for Humanity" in Arizona - a global non-profit organisation that creates housing for people in need.

### Real-time data in just a click away: PERI Insite Construction

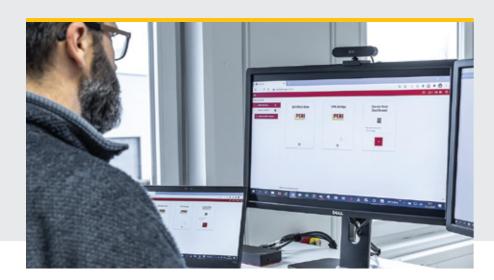
### The solution for optimal concreting operations



#### **PERI InSite Construction | Concrete temperature and strength**

Especially for infrastructure projects with climbing systems and mass concrete, such as bridges, high-rise buildings and towers with more than 20 storeys, the use of PERI InSite provides considerable advantages. The intelligent solution helps to lower the cost of concreting operations, reduces the time required and increases the level of safety.

PERI InSite includes the SONO WZ water-cement analyser and three sensors for determining the concrete pressure and temperature as well as for checking the filling level. While the SONO WZ displays the measurement results directly on the corresponding hand-held measuring instrument, the three sensors are connected by means of a cable to a reusable node which communicates via radio waves with a gateway. The gateway in turn transmits the information via GPRS to a cloud from where it can be retrieved in real time by the users – whenever and wherever they are.





#### Water-cement analyser

for fresh concrete with special



### **NEW Pressure control**

the pouring speed

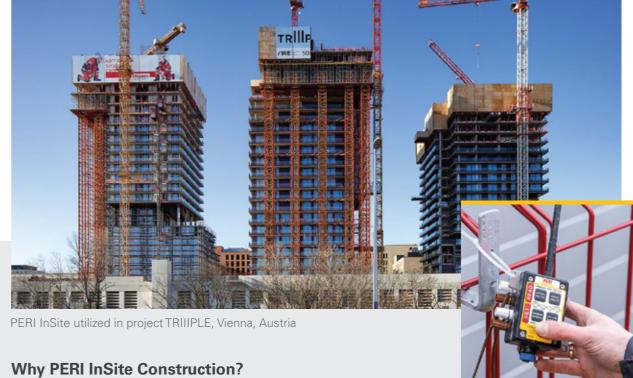
monitoring



#### **NEW Compaction measurement** for checking the filling level in



#### **NEW Temperature measurement** for efficient temperature



#### Easy to use

Compatible with all formwork systems A standard system for the entire concreting process Broad network coverage via cellular network Easy charging of the sensor nodes in the technical housing or directly on the power grid

#### Economics

Optimization of the concreting process Calculate concrete strength Determination of the temperature of bulk and winter concrete Temperature measurement for efficient temperature monitoring Optimize the utilization and operating times of the formwork

#### Security and Documentation

Sustainability - no batteries, transmitters, receivers or circuit boards remain in the concrete Well-founded decisions lead to a higher concrete quality Efficient digital data documentation

Safety through monitoring of relevant concrete parameters Visualization of the data creates transparency



### Building Singapore with you, one step at a time



#### Supporting you throughout challenging times

Over the last 30years, PERI Singapore has been involved in numerous of your projects which have been shaping Singapore's landscape.

In challenging times like these, PERI Singapore is dedicated to help and support our partners.

With PERI systems, let us show you how you can combat the shortage of manpower, reduce complexity of conventional formwork, boost efficiency, increase productivity and safety at jobsites. Having minimal but sufficient manpower working at sites in addition helps achieving safe social distancing measures as well - and that's with increased productivity.

Feel free to reach out to us to learn more about our innovative systems.

### **PERI Singapore**

Your reliable Partner since 1991.









