

OUR VISION: SHAPING TOMORROW – IN ONE POUR

MONOCAST Monolithic Formwork



Watch the video now



MONOCAST

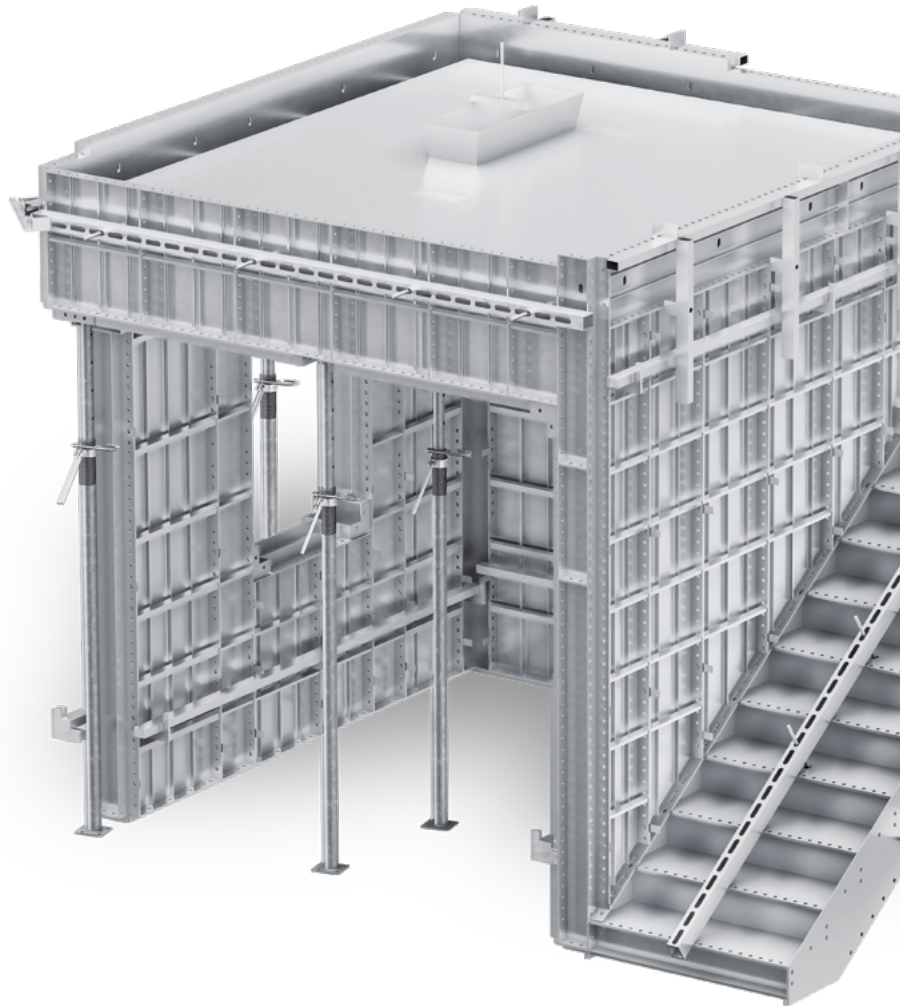
Monolithic Formwork

With MONOCAST, construction is entering a new era. Designed for visionaries, our innovative aluminium formwork system empowers you to realise bold ideas – all with one system in a single pour. With its remarkable durability, speed, and precision, MONOCAST sets a new benchmark for the industry. One system, one pour, pure precision – shaping tomorrow, today.

This leap forward is made possible by MONOCAST's smart engineering. Its innovative panel design and flat tie system enable simultaneous casting of walls, columns, slabs, beams, and stairways in one go. This results in shortened timelines, fewer resources, and enhanced flexibility on-site.

Crafted from lightweight aluminium, the system eliminates the need for cranes, making assembly quick and effortless. The snap tie system removes the hassle of covering accessories and grouting, streamlining your workflow from start to finish.

Whether you're a seasoned pro or new to the construction site, MONOCAST is intuitive and easy to use – delivering professional results with minimal training requirements.



High-speed production

Automatic production lines have a production capacity of 20,000 m² per day, enabling standardised and high-speed manufacturing that ensures fast delivery to construction sites.



Manually handled system with weight varying from 22 – 24 kg/m²

Designed for 60 kN/m² concrete pressure

6 levels of snap ties for floor heights up to 3.3 m

Standard panel height of up to 3.0 m possible, as per customer requirements



Your benefits

Durable

Powder-coated, fully extruded panels with vertical ribs make the system highly robust and long-lasting. The powder coated surface makes the de-shuttering process easier, saving time and increasing overall durability. Thanks to the high degree of reusability, MONOCAST panels offer significant cost savings – especially in large-scale residential construction projects.



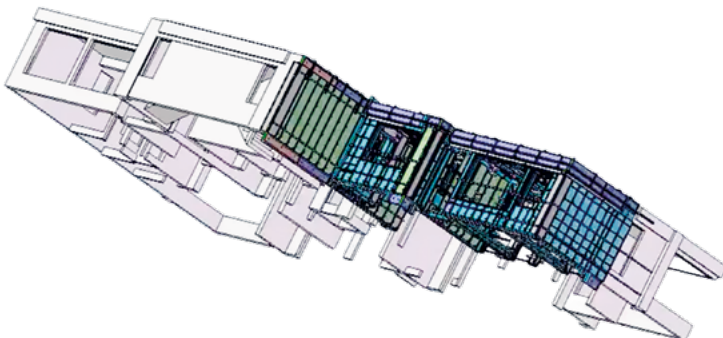
Fast

The system enables rapid installation, featuring ergonomic, easy-to-grab handles and a smart snap-tie mechanism that accelerates assembly and eliminates the need for grouting altogether. Thanks to the early striking mechanism for the slab, fast construction cycles can be achieved.



Precise

Our expert design team creates versatile solutions for a wide range of building types, enabling design flexibility. The precision of our formwork reduces the need for on-site formwork adjustments. Reduced dispatch and initial setup times are further supported by an AI-assisted virtual mock-up, streamlining the entire process.





Innovative flat tie solution

Flat snap ties enable quick and efficient assembly, simplifying the construction process. After concreting, they can be easily broken off 10 mm inside the concrete surface, eliminating the need for grouting.



Maximum use of standard panels

Most wall panels are standard panels, ensuring consistency across projects. MONOCAST is the ideal solution for straightforward construction site processes.



Product advantages at a glance



Robust and crane-free

Easy manual handling, no crane needed (weight 22 – 24 kg/m²)

Reliable quality

Robust system design with fewer tie points and powder-coated panels ensures high performance and smooth concrete finish

Cost-effective

Improved cost-efficiency due to shorter cycle times and maximum reuse of standard panels across multiple projects

Sustainable and recyclable

The aluminium cycle: melt, remake, and recycle for high reusability

Quick assembly

Swift assembly processes for streamlined workflows

Digital and accurate

Reduced execution errors, thanks to AI-assisted virtual mock-ups

Fully extruded panels

Single extruded panels made from high-strength 6061 grade aluminium with vertical ribs enhance robustness and ensure a longer system service life.

Ensuring excellence in your on-site procedures

MONOCAST is designed to improve your on-site processes by enabling fast work, reducing the requirement for skilled labour and minimising adjustments through precise advance planning and sophisticated engineering.

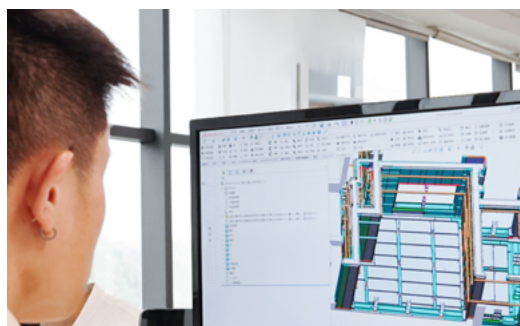


Engineered for speed

Sophisticated system characteristics simplify assembly. When you choose MONOCAST, you are choosing an excellently engineered system. Its built-in ribs and robust panels, requiring fewer tie levels than usual, will make handling and work processes easy and fast throughout your projects.

Built to last

Fully-extruded panels enhance durability. Highly durable components and an innovative system design enable you to reuse the standard system parts multiple times in numerous projects, saving reinvestment costs and boosting your project efficiency.



Precisely planned to perform

Pure precision in planning enhances efficiency and reduces errors on site. AI-assisted intelligent digital mock-ups enable precise planning and visualisation before arrival at the construction site. This results in more accurate formwork, significantly reducing errors during execution. The high level of precision minimises on-site assembly errors.

Support for construction excellence

On-site support from our PERI experts ensures smooth and precise project execution. Our product specialists provide technical support and assist your team on site to ensure efficient, reliable execution. Additionally, a smart color-coding system with intuitive stickers on each panel simplifies component identification and speeds up assembly on site.



One pour – wide-ranging applications

From single homes to large-scale developments, MONOCAST can be adapted to a wide range of applications, creating more space in a short time with exceptional precision.

Low-rise and mid-rise projects

From low-rise buildings to efficient mid-rise buildings, MONOCAST delivers strength, speed, and precision in every project. Engineered for versatility, it adapts seamlessly to different architectural styles and structural requirements, enabling fast construction timelines without compromising on quality. The result: durable, high-performance spaces that meet the demands of modern living.



Woodlands, Singapore



Hulhumalé, Maldives

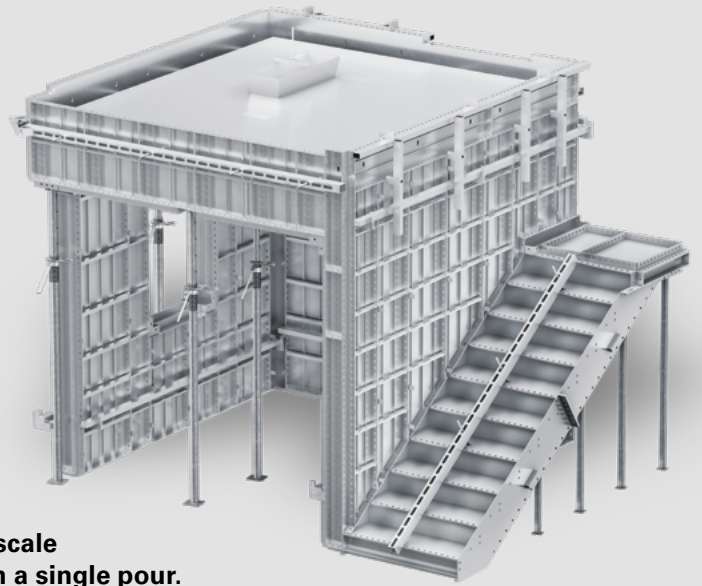


High-rise projects

For high-rise developments, MONOCAST combines structural integrity with construction efficiency at scale. Designed to meet the demanding requirements of tall buildings, it delivers precise, consistent quality floor after floor – reducing build times while ensuring long-term durability and safety. The result is a faster path from blueprint to skyline.

WYN residence, Malaysia

Why choose monolithic construction?



The Monolithic Construction Method (MCT) offers numerous advantages, especially in the case of large-scale residential projects. More building, less waiting – all in a single pour.



Fast progress

Time is money, especially in large-scale projects. With monolithic construction methods, you can build more in less time.



Cost efficient

Superior and cost efficient construction method compared to precast and conventional construction method.



Aesthetic freedom

Contrary to common belief, monolithic construction can be adapted to various building layouts, designs, and shapes.

- **Shorter construction times**

Monolithic formwork enables continuous work avoiding the need for block work and plastering.

- **Less dependency on skilled labour**

Monolithic formwork system is self intuitive and easy to understand which reduces dependency on skilled labour.

- **Minimal rework**

Fewer joints and smooth concrete finish eliminates plaster and finishing works.

- **Negligible initial investment**

Unlike onsite pre-cast factories, MCT requires no high initial investment and simplifies site logistics as a crane-free system.

- **Reduced training effort**

MCT engages unskilled workers with minimal training, in contrast to precast construction.

- **High quality**

MCT minimises construction joints compared to precast and conventional construction, resulting in a structurally robust building and eliminating leakage issues.

- **Freeform design possible**

Modern formwork systems allow for creative, curved or organic shapes.

- **High dimensional accuracy**

Tight tolerances enable clean finishes – ideal for demanding architecture.

- **Seamless aesthetics**

Homogeneous concrete surfaces eliminate the need for plaster work.

One pour – multiple benefits

Monolithic formwork offers unmatched speed, strength, and efficiency – making it the ideal method for modern construction.

- Fast construction time and less dependency on skilled labour
- Long-term savings through reduced maintenance
- Ideal for a wide range of housing projects such as low-rise buildings, mid-rise, and high-rise apartments
- Seamless process as everything is formed and shaped in a single pour
- Minimal joints – No weak points: The Monolithic Construction Method minimises construction joints, making buildings disaster-resistant

For developers

- Lower costs, faster ROI
- More reliable timelines
- Reduced complexity

For architects

- Greater design freedom
- Clean lines and flexible design
- Modern aesthetic possibilities

For project managers

- Less dependency on skilled labour
- Easy quality control
- Simplified coordination

For investors

- Stable value due to longevity
- Long-term financial security

OUR MISSION: BEING CLOSE BY

As a true global player, PERI feels at home wherever your projects take you – and is always within reach. MONOCAST is available across vast regions of the Middle East, Africa, Asia, and Latin America, ensuring our PERI Experts are always close by. When you choose our system, you gain more than innovative technology – you get a reliable partner, committed to your success, anywhere in the world.

