



SPEED
QUALITY
EFFICIENCY



aluminium[®]
formwork
speed • quality • efficiency

www.mfeformwork.com

ABOUT MFE

MFE aluminium formwork solutions are used globally to construct a wide range of reinforced concrete buildings and structures.

From simple single storey housing, to the most challenging and iconic high-rise buildings, MFE can help you build your project faster, more efficiently, and to the highest quality standards



MFE Project - Cayan Tower, UAE

***"SINCE 1991 MFE FORMWORK HAS BEEN USED TO BUILD MILLIONS OF APARTMENTS,
HOUSES, HOTEL ROOMS AND OFFICES IN OVER 54 COUNTRIES"***

OUR HISTORY



*THE ORIGINAL ALUMINIUM FORMWORK
AND STILL THE BEST.*

MFE (Mivan Far East) started life in 1991 as a division of Mivan Ltd., a well-known British construction company who pioneered the use of aluminium formwork, and revolutionized the way that reinforced concrete buildings were constructed.

Using high-grade aluminium alloy to produce lightweight but exceptionally strong formwork panels, MFE developed a highly efficient and productive formwork system and construction methodology that can significantly increase construction speeds, and provide substantial cost savings for a wide range of construction projects.

MFE were the first company in the world to successfully commercialize aluminium formwork for monolithic construction on an industrial scale, and after many years as the global leader in our field, our customers now benefit from our vast experience in successfully delivering aluminium formwork solutions for construction projects in over 54 countries.

MFE DESIGN EXPERTISE

INDUSTRY LEADING ALUMINIUM FORMWORK DESIGN EXPERTISE FOR ALL TYPES OF CONCRETE STRUCTURES.

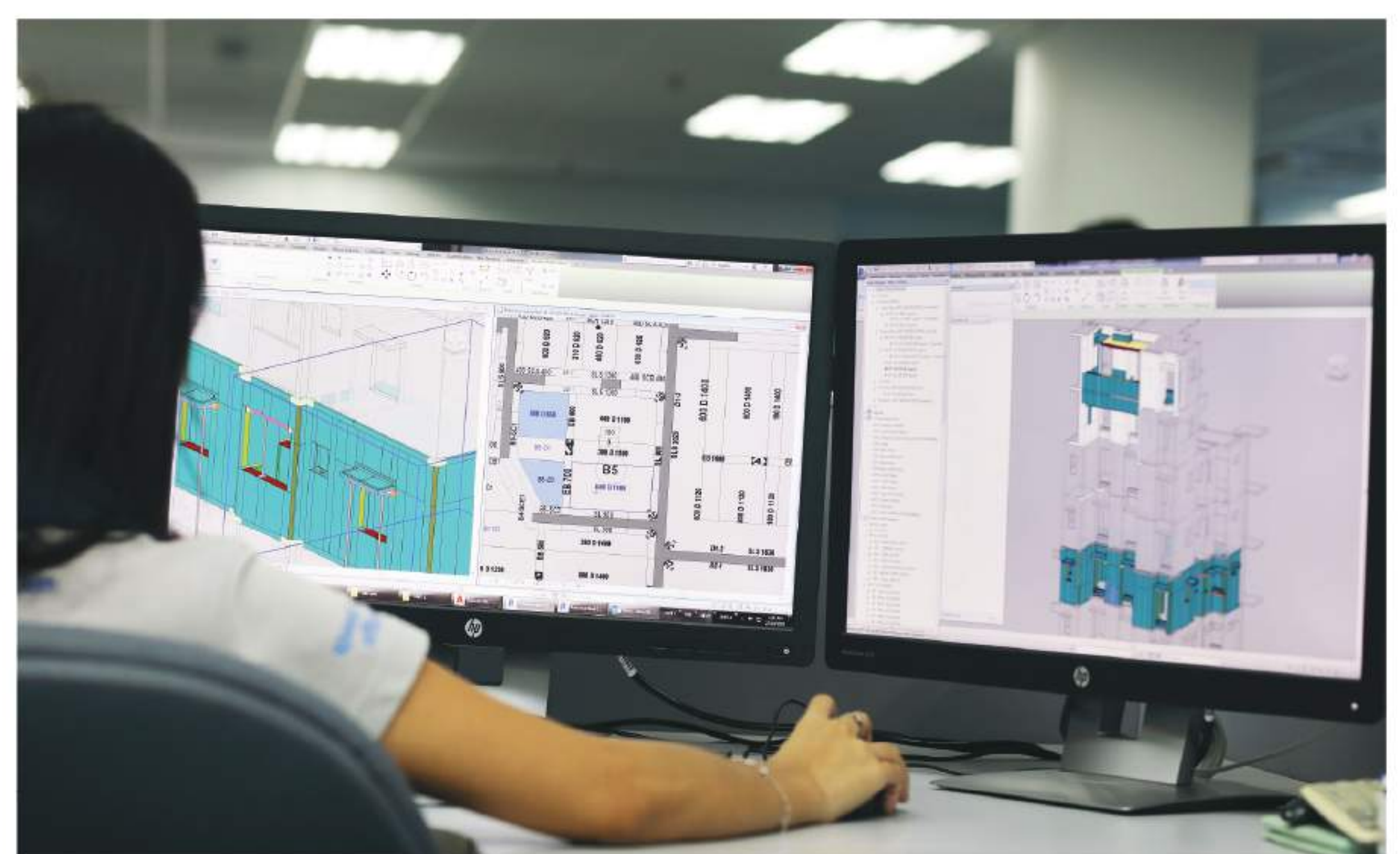
The MFE engineering and design team has extensive experience in designing highly efficient aluminium formwork solutions for virtually any type of construction project.

Our design engineers are able to maximise the productivity and cost saving advantages of our solutions and construction methodology, while accurately reproducing the building design vision and architectural features of the structure.

Our design team are experts in resolving engineering complexities and simplifying on-site operations with innovative designs that deliver high productivity and fast construction times.

Using our client's architectural and structural drawings, we design the formwork system to incorporate the most efficient construction process, and optimise formwork usage for long term reuse on future projects. Our designers use the most advanced design tools including 3D design software with MFE customised adaptations and plug-ins jointly developed with leading software providers.

From simple layouts to highly complex structural designs, the MFE engineering team are able to produce elaborate 3D visualisations, and optimise the designs for rapid construction work cycles for easy adoption by the construction site teams.



BY OPTIMISING THE FORMWORK DESIGN WE DELIVER SUPERB PRODUCTIVITY PERFORMANCE
ON-SITE, AND ENABLE HIGH RE-USABILITY FOR MAXIMIM RETURN-ON-INVESTMENT ON
FUTURE PROJECTS .

MFE MANUFACTURING

WITH AN ANNUAL PRODUCTION CAPACITY OF 1.5 MILLION m² OF ALUMINIUM FORMWORK PER YEAR, MFE ARE ABLE TO DELIVER ANY SIZE OF ORDER WITHIN DEMANDING DELIVERY DEADLINES



Our 70,000 m² factory area is equipped with the latest manufacturing technology, and has a production capacity of over 120,000 m² of aluminium formwork per month.

Our state of the art manufacturing center based in Port Klang, Malaysia, uses the latest production processes and technology to produce the highest quality aluminium formwork panels for our clients.

In 2010, MFE was the first formwork company in the world to adopt system 'Friction Stir Welding' into our aluminium formwork panel manufacturing process. This advanced eco-friendly welding system is used predominately in the aerospace and automotive industries but MFE have developed and integrated the technology into our formwork manufacturing process. Friction Stir Welding minimises metal distortion during welding, and produces the highest welding strength possible to give our formwork long term durability and longevity.

MFE formwork and safety products are manufactured to the highest quality standards, with multiple quality control points and quality assurance processes throughout our production processes to ensure our

MFE

TECHNICAL & SITE SUPPORT

MFE's EXPERT TECHNICAL & SITE SUPPORT TEAMS WILL GUIDE OUR CLIENTS IN THE SET-UP AND DEPLOYMENT OF OUR FORMWORK SYSTEMS ON-SITE TO ENSURE YOUR PROJECT IS A SUCCESS



With many years of experience on multiple types of construction projects, our technical and site support engineers assist and train your construction teams on how to use MFE formwork system effectively, with a focus on productivity, finish quality and safety.



Our technical and Site Support personnel have extensive experience in deploying our formwork to a wide range of projects and building types

Our experts will guide customer construction teams through the entire deployment process, from system set-up, to achieving target construction cycles times including:

- Oversee the checking-in of formwork delivered to site to make sure all components are included
- Give instruction on the formwork set-up process, and provide training to the clients local construction team
- Ensure the team is able to use the system in a safe and productive way
- Provide technical and troubleshooting support for any site issues
- Oversee the construction of the first floors/buildings before handing over to a full trained local team

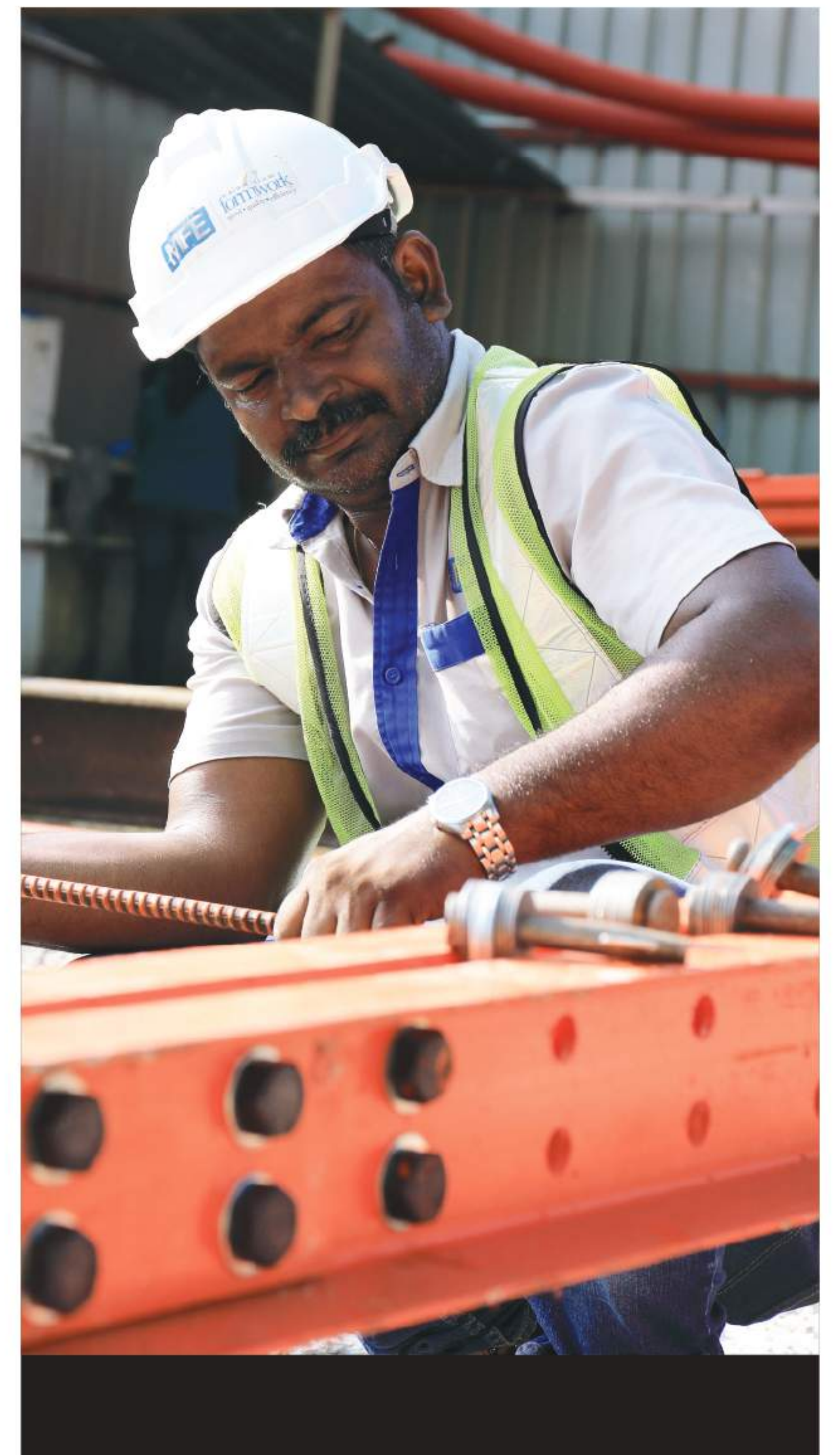
On-site support duration varies depending on the size and type of projects, but typically MFE support engineers are on-site for approximately 8 weeks for each project.

THE MFE ADVANTAGE

We understand the needs of today's construction industry, and the requirement of developers and contractors globally to deliver high quality structures within planned construction deadlines and cost budgets.

- With many years of global construction experience, we approach your project from a true construction perspective to ensure the performance of our formwork solutions deliver the right results on-site
- Our extensive team of highly experienced in-house AutoCAD and Revit designers have a vast experience in designing formwork solutions for a wide range of building types
- State-of-the-art manufacturing facilities with a production capacity of over 120,000 m² of aluminium formwork per month, manufactured to the highest quality standards, means we can deliver any size of project to meet tight construction deadlines
- Highly experienced MFE support teams ensure that our client's projects are delivered to planned schedules, and to the highest quality standards. MFE site engineers will be on site to guide customer's teams through the entire process from system set-up to achieving target build cycles and finish quality expectations

***"BY CHOOSING MFE AS YOUR FORMWORK PARTNER FOR YOUR NEXT PROJECT,
YOU CAN BE CONFIDENT THAT YOUR STRUCTURAL BUILD WILL BE ON TIME AND COST EFFECTIVE"***



SYSTEM FORMWORK

Our market leading Mivan aluminium system formwork has become the most recognised solution for monolithic construction worldwide. In many countries, Mivan formwork is the default construction solution for both high-rise and landed housing projects, delivering superb efficiency and quality results.

MFE system formwork is designed specifically for each building to simplify the construction process, and provide the ability to adopt a monolithic construction process for all building components in a single concrete casting including:

- Walls
- Slabs
- Columns
- Beams
- Stairs
- Balconies
- Architectural Features
- Doors and window openings are also incorporated

As our formwork is designed for the project, MFE system formwork can be operated by semi-skilled or unskilled workers trained by the MFE Site-Support teams, and requires no specialist tools, equipment, or heavy lifting equipment/crane time.

This approach can dramatically reduce construction times, reduce costs, and results in an extremely strong and high quality concrete structure.

By utilising MFE System Formwork and adopting our monolithic construction methodology, construction cycle times for high-rise and mid-rise buildings can be reduced to just 4-5 days per floor, and landed housing built at a rate of 1 house per day.

With the ability to redesign and reuse the system on multiple projects, and being a 100% recyclable product with no consumables, MFE system formwork is sustainable and eco-friendly, while delivering excellent productivity and efficiencies for any construction project.



SYSTEM BENEFITS



Reusable – MFE formwork can be redesign and reused 300 - 1,000 times for maximum investment return on multiple projects



Lightweight – Hand-set panels with an average weight of only 23 – 25 kg per m² eliminates the need for lifting equipment or crane time



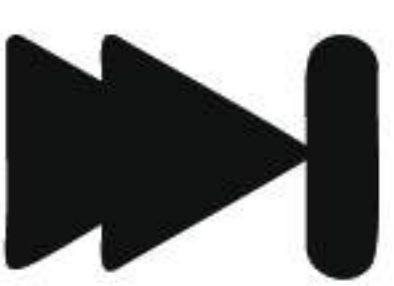
Recyclable – MFE aluminium formwork panels are 100% recyclable at the end of the panel lifecycle



Eliminate site rubbish – With no consumables or timber/ply site rubbish from formwork is completely eliminated resulting in a clean and safe site operation



Simple to use – Semi or unskilled labour can be trained by MFE to use our system formwork safely and productively with no special tools required



Achieve fast build cycles – Mid & high rise construction can easily achieve cycle times of 1 floor every 4-5 days, and landed housing 1 house per day.



High quality finishing – Achieves a high quality concrete finish with no heavy plastering or excessive finishing trades or remedial works needed. Typical finishing only required a 5mm “skim coat”



Design flexibility – Highly experienced design team able to provide system solutions for multiple types of building and concrete construction applications



Strength & stability – High load bearing capacity of up to 100 KN per m² when assembled (dependent on type and dimension of panel used)



Reduce construction costs – Substantial direct and indirect cost reduction achievable in all areas of your structural build.

MFE QUICK DECK

LIGHTWEIGHT FULLY ALUMINIUM SLAB FORMING SYSTEM FOR HIGH PRODUCTIVITY & QUALITY RESULTS



MFE Quick Deck is a hand set, fully aluminium slab system for forming large slab areas rapidly and safely, and is able to be integrated with all MFE aluminium formwork, and conventional forming systems.

The system delivers high productivity results with simple and safe installation using a minimum of only 3 workers. The easy erection process is by tilting up the aluminium panels, and locking them into the specially designed prop heads. As panels are erected from below, no ladders or cranes are needed and panels can be safely and easily handled by only two people thanks to the grip-holes in the edge rails.

Our quick release mechanism in the prop crown heads provides a fast, safe and systematic assembly and dismantling process, and the prop heads remain in place during formwork stripping to prevent shock loading on slabs, and allowing the slab to be supported for extended periods while formwork is moved to the next forming area for excellent productivity. The 2-stage lowering function with the crown head plate nodes prevent panels from accidentally falling during dismantling.



Prop lengths are available for up to 5m floor heights, and standard panels are capable of supporting slab thicknesses up to 450mm, with heavy duty panels able to support slab thicknesses up to 650mm.

Quickdeck panels have a usable lifespan of more than 400 re-uses for maximum ROI, and standard size panels give flexibility for use on all types of project for maximum re-usability.

Made of 100% high grade aluminium alloy with no consumables, Quick Deck is a sustainable systems and fully recyclable after end of use.



MFE VERTICAL

MFE Vertical is a lightweight, hand set aluminium formwork system for forming multiple sizes of columns, with rapid assembly and striking capabilities for maximum productivity results.



The formwork panels feature a wider side rail of 85 mm and additional bracing to increase the panel strength and longevity. MFE Vertical formwork is able to withstand concrete pressures up to 100 kPa, and has a lifespan expectation of up to 1,000 reuses with proper care.



Using standard panel sizes ranging from 100 mm up to 600mm widths, and a standard panel height of 3.2m, panels can be easily configured to form multiple column sizes and dimensions. Panel heights can also be customised to suite specific client requirements.



Only 3 levels of walers are required for pouring heights of up to 3.2m, and our easy to install walers make assembly and dismantling fast and efficient.

MFE VERTICAL KEY BENEFITS

- Configure standard panel sizes to form multiple column dimensions
- Lightweight handset system
- Fast assembly and striking for increased productivity
- Only 3 levels of walers required at 3.2m heights
- No through rods required for column sizes below 1.2m
- Pre-drilled filler panels for easy through rod installation for larger column sizes
- Rated for concrete pressures up to 100 kPa
- Reusable on multiple projects – 1,000 reuses

MFE SELF CLIMBING PLATFORM (SCP)

MFE's Self Climbing Platforms (SCP) provide highly effective worker safety & protection at upper construction levels when constructing high-rise buildings, and at lower finishing levels as the structure progresses.

Our SCP fully encloses the building perimeter to provide extremely safe working conditions, eliminates the risks of personnel falling, and protection to stop dropped items causing damage or injury below.

The system climbs hydraulically so is crane-independent, simple to operate, and is structure guided for full stability, even in adverse weather conditions.

Platforms can be configured for Construction Working Platforms at the top of the structure, or as Finishing Platforms for lower level finishing trades.

Perimeter safety and protection for Construction Works

Typically 2.5 level platforms for main structural works

- Upper Level – Concreting operations
- Mid-level – Formwork operations
- Lower Level – External wall finishing, e.g. tie-hole plugging etc.





Perimeter safety and protection for External Finishing Works

Configurable as 2.5, 3.5, or 4.5 levels, installed a number of floors below the upper Construction Platform for external finishing trades including:

- Final wall finishing
- Window installation & glazing
- External fixtures and fittings
- Painting, cladding works etc

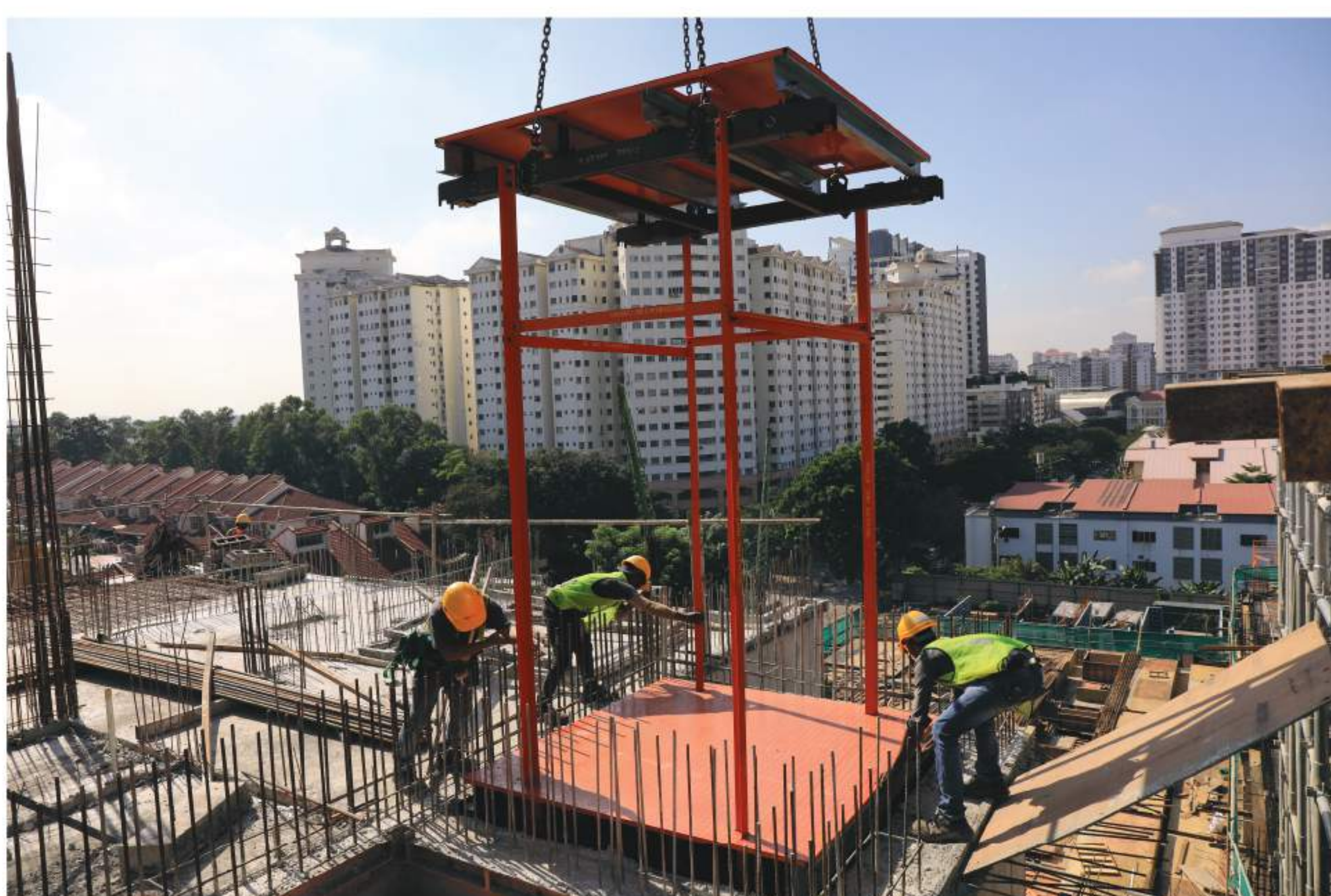
All platforms are able to be redesign and re-used on multiple buildings providing re-usability and excellent return-on-investment.

MFE SCP solutions dramatically increase site safety, boost productivity of workers, and saves crane time and costs with independent hydraulic climbing.

Lift Core Platform

Our Lift Core Platform provides excellent conditions for worker safety, and is an essential piece of equipment when constructing Lift Core walls.

- Protects against fall accidents and dropped items around lift cores
- Ultra safe working environment for lift core formwork erection and striking, and lower wall finishing level
- Easily assembled on-site



MFE PROJECT





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