



aluminium®
formwork
speed • quality • efficiency

SINCE 1991



MFE- GURKHAS GROUP Formwork Technology

Company & Product Introduction
2020

The worlds leading aluminium formwork systems provider





Introduction

Since 1991 MFE have pioneered the design, manufacturing and global adoption of aluminium formwork solutions for the construction industry

The first and still the best

Cayan Tower | Dubai, UAE

1991 – 2020

29 YEARS OF CONSTRUCTION
INNOVATION AND EXPERTISE GLOBALLY

HISTORY

1991



STARTING



Mivan Far East was established in Malaysia by the Mivan Group Ltd. UK, a global construction contractor, and was the first aluminium formwork manufacturer in Asia

2007



BUSINESS GROWTH



Management buy-out and company name changed to MFE Formwork Technology

2015



EXPANSION

New global headquarters opens in Kuala Lumpur, Malaysia, with over 70,000 m² of design and manufacturing facilities

2020



GLOBAL SUCCESS

With successful project solutions delivered to clients in over **53 countries spanning 6 continents**, MFE continues to be the global leader in aluminium formwork solutions





1.2m m²

Annual Formwork
Production Capacity



2,000

Employees



29

Years in Business



53

Countries with successfully
completed projects



300+

Design & Site Engineers

WHAT WE DO

With over 30 years of global construction experience, we have built a world leading design, manufacturing and support team with unparalleled expertise in providing aluminium formwork solutions for a wide range of concrete structures and applications



FORMWORK DESIGN

Expert team of designers and engineers with a wide range of experience in designing solutions for all types of concrete structures



MANUFACTURING

70,000 m² of manufacturing and engineering facilities, using advanced production technologies and the highest quality control standards



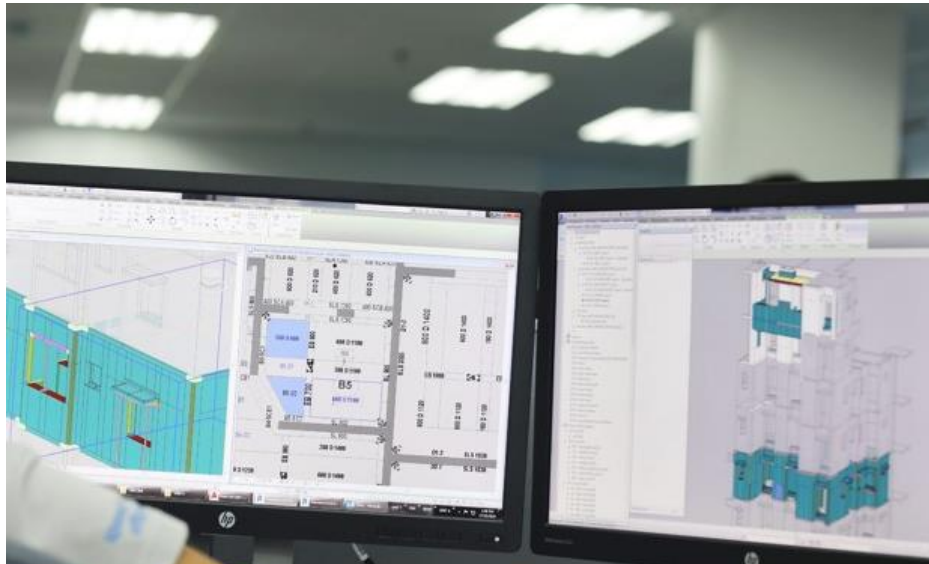
SKILLED LABOUR SUPPLY

Highly experienced team of site engineers and pool of skilled labour supply to provide installation of the formwork.



FORMWORK DESIGN

Our design team has extensive experience in designing aluminium formwork for virtually any type of construction project. Working with the client’s construction drawings, we will maximise the benefits of MFE formwork to achieve rapid build cycles and high-quality finishing, while retaining the architectural vision and structural integrity of the building



Advanced Design Software

Our designers use AutoCAD & Revit software with in-house developed plug-ins to design formwork that optimise the advantages of our aluminium systems for clients globally

Experienced Team

Our designers work with the clients architectural & structural drawings to optimise the formwork for each project



Design resources

Over 130 experienced and highly trained design engineers able to design any size of project quickly and efficiently



Design support at all stages

Simple to use design drawings are provided for on-site operations in an easy to read format for site efficiency



MANUFACTURING



HIGH CAPACITY
70,000 m² of factory area equipped with the latest technology with a production capacity of over 120,000 m² a month



ADVANCED TECHNOLOGY
Pioneering the use of Friction Stir Welding ensuring maximum strength and durability with minimum deviation on our panels.



QUALITY
MFE formwork is manufactured to the very highest quality standards



SKILLED LABOUR SUPPLY



Our highly experienced labour supply will ensure.

Gurkhas Construction Limited's extensive experience in installing MFE formwork solutions to a wide range of projects and building types

There will be supervisors on site to ensure smooth operations.

- Check-in the formwork delivered to site
- On-site supervision and training of the local construction team
- Ensure the team can use the system in a safe and productive way

THE MFE ADVANTAGE

For over 30 years we have been a market leader in designing and manufacturing world class aluminium formwork solutions for the construction industry in over 50 countries.

By working with MFE, our customers benefit from this wealth of experience and expertise.

We are construction people...
... not just aluminium manufacturers



CONSTRUCTION HERITAGE

With over 30 years global construction experience and world leading aluminium formwork systems development, we approach your project from a true construction perspective



DESIGN EXPERTISE

Over 130 experienced AutoCAD and Revit designers with vast experience in designing formwork solutions for a wide range of building types



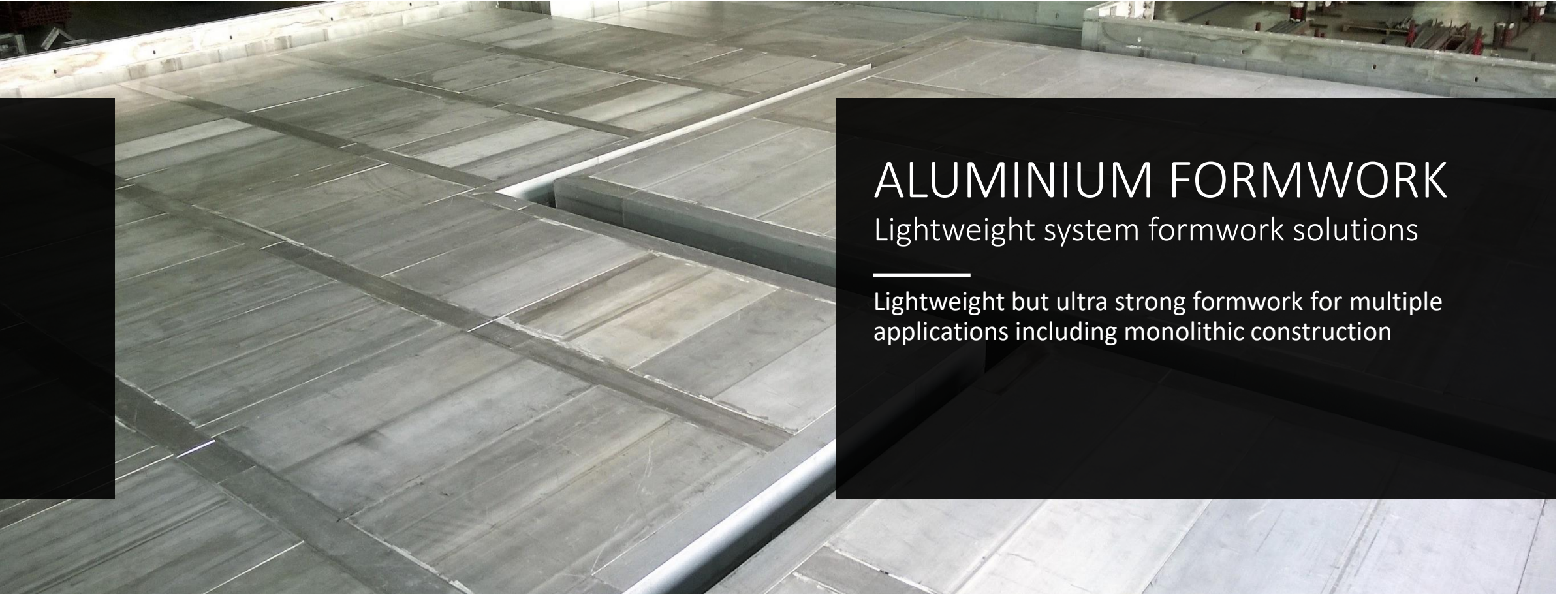
MANUFACTURING QUALITY & CAPACITY

Capacity of over 120,000 m² of aluminium formwork per month with the highest quality standards mean we can deliver any size of project with **Speed, Quality & Efficiency**



GLOBAL SUPPORT

Our highly experienced support team assist clients world-wide to ensure their project is delivered to the planned schedules and the highest quality standards



ALUMINIUM FORMWORK

Lightweight system formwork solutions

Lightweight but ultra strong formwork for multiple applications including monolithic construction

SYSTEM FORMWORK

MFE System formwork has been the global benchmark for monolithic construction and aluminium formwork applications for over 30 years

- Formwork designed for the building so simplifies the construction process on-site
- Manufactured with high grade 6061 T6 aluminium alloy
- Lightweight but strong panels easy to hand operate on-site – no crane time needed
- Stay-in-place props enables fast slab formwork removal for rapid construction cycles
- Minimal surface deviation (+/- 2.2 mm) for high quality concrete finishes
- Can be operated by semi-skilled or un-skilled labour with training by MFE engineering teams
- Fully reusable on multiple projects for maximum Return on Investment
- 100% recyclable





Monolithic Construction

MFE is the leader in monolithic construction using aluminium formwork

Ara Green | Kuala Lumpur, Malaysia



Cast all components in a single operation

- Columns
- Beams
- Slabs
- Walls
- Lift Core
- Balcony's
- Architectural features
- Door & Window openings incorporated



Accuracy & Finnish Quality

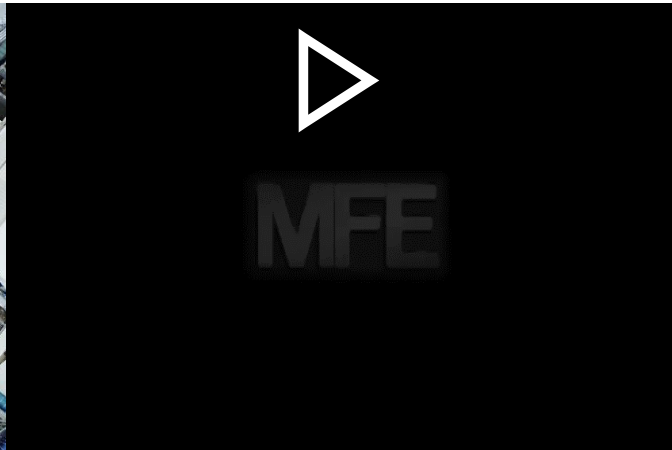
- Minimise construction joints
- High accuracy in building dimensions
- Excellent concrete finish quality (vertical deviation only +/- 2.2mm)
- No plastering needed | 5mm "skim coat"



Speed of Construction

- Designed for each project, simplifies construction process on-site
- GCL labour supply trained by MFE
- Reduces need for carpenters & bricklayers
- Construction cycle of 4 days per floor easily achievable


MONOLITHIC CONSTRUCTION



Cantara | Kuala Lumpur, Malaysia

MONOLITHIC CONSTRUCTION





Rapid housing construction
cycle video

Monolithic construction cycle of 1
house per day



MONOLITHIC WORKFLOW

01 Mark out slab ready for rebar & M&E installation

Prepare and mark-out slab ready for rebar, M&E installation and formwork installation.



02 Fix rebar & install M&E components

Fix rebar and install any in-wall M&E fittings and conduit as per the M&E design requirements.

MONOLITHIC WORKFLOW

03 Erect and align formwork

Erect formwork as per the design drawings, check alignment and carry out all pre-pour checks



04 Pour concrete

Pour concrete and compact as required

MONOLITHIC WORKFLOW

05 Strike formwork and move to next level

Strike formwork with vertical formwork able to be stripped after **12 hours (concrete strength achieves 2N/mm²)** and slab formwork after **36 hours (concrete strength achieves 10N/mm²)**. Slab formwork can be removed without removal of props (2 x levels of props provided) and after striking, formwork is moved to the next level/unit for reassembly.



06 Quality concrete finish after removal

Concrete finishing after removal will require a 5mm skim coat only with no plastering, excessive finishing, and minimal remedials.

CONCRETE FINISH



- Excellent concrete finish with vertical deviation of only +/- 2.2 mm
- Eliminates the need for extensive finishing and/or plastering
- M&E provisioning provides considerable time saving

SUITABLE FOR MULTIPLE PROJECT TYPES



Residential

- High-rise from mid-luxury developments to social and affordable housing projects
- Low-rise with multiple block clusters
- High-end landed housing and villa developments
- Town-houses
- Single or double storey housing

Commercial

- High-rise office towers
- Hotels
- Mixed use developments

KEY SYSTEM BENEFITS



REUSABLE

With 300 – 1,000 reuses, ROI is maximised on multiple projects



LIGHTWEIGHT & HAND SET

Average panel weight only 23 – 25 kg so no heavy lifting equipment or crane time needed



SIMPLE TO USE

No special tools required and able to use **Non skilled labour with MFE training**



FAST BUILD CYCLES

Construction times of **4 days per floor for mid-rise and high-rise buildings and 1 house per day for landed properties** are achievable

KEY SYSTEM BENEFITS



FULLY RECYCLABLE

100% recyclable aluminium alloy, with high scrap value recoverable at the end of usable life



REDUCES SITE RUBBISH

Constant reuse keeps the site clean, safe and tidy reduces cost of site cleaning & rubbish disposal



ACCURACY BY DESIGN

Highly accurate building dimensions and high quality finishing **substantially reduces remedial costs**



FINISH QUALITY

High quality finish with minimum deviation (+/- 2.2 mm) **requires only a “skim coat” finish with no heavy plastering required**

QUICK DECK



Hand set aluminium decking system for forming large slab areas rapidly and safely. Fully compatible with all MFE aluminium formwork

QUICK DECK SLAB FORMING SYSTEM

Quick Deck is a rapid slab forming system fully compatibility with all MFE aluminium formwork systems and other conventional forming solutions

- Lightweight aluminium panels weigh only **34 kg**
- **Simple and rapid to erect with minimum of 3 workers**
- Quick release prop heads for fast systematic dismantling process
- Usable lifespan of more than 400 re-uses for maximum ROI
- 100% high grade aluminium alloy fully recyclable after end of usable life with high scrap value
- **Compatible with all MFE Formwork systems and can be integrated with other systems and conventional**





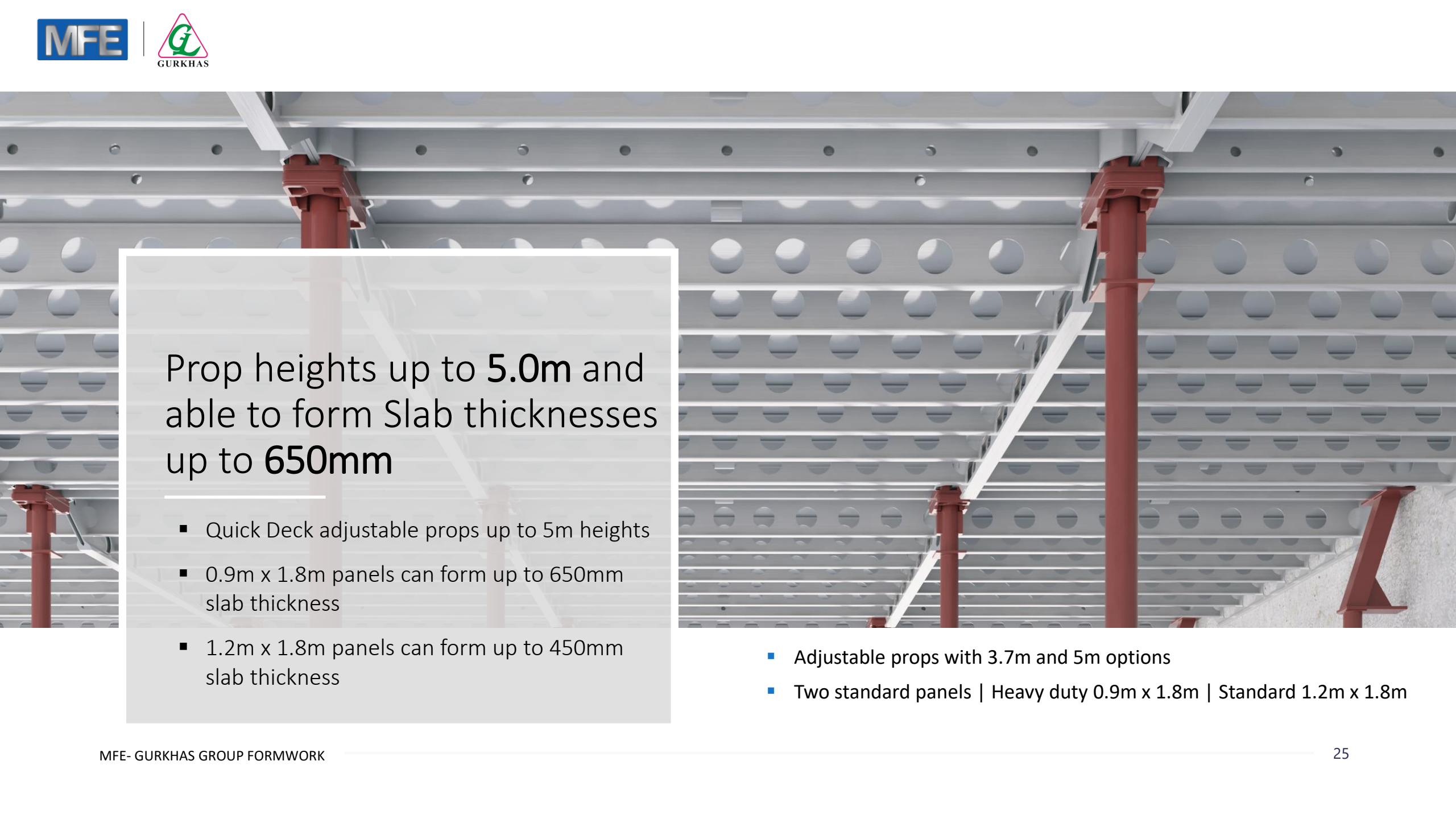
Quick Deck is ideal for multiple types of projects

Commercial buildings

Lower level podium and car park construction

Typical and non typical slabs

Any type of flat slab project



Prop heights up to **5.0m** and able to form Slab thicknesses up to **650mm**

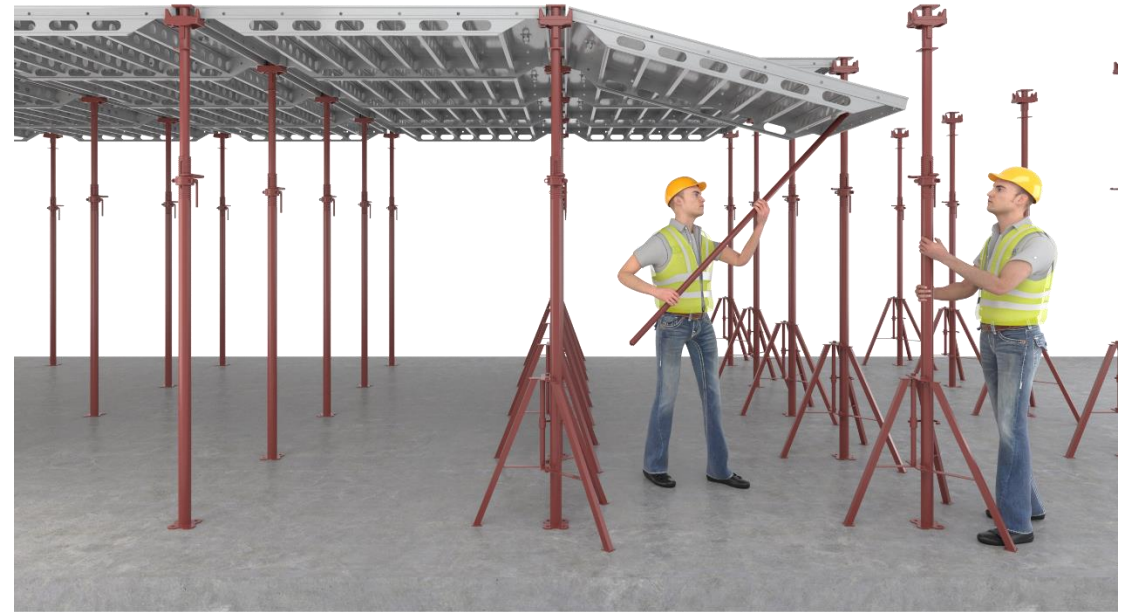
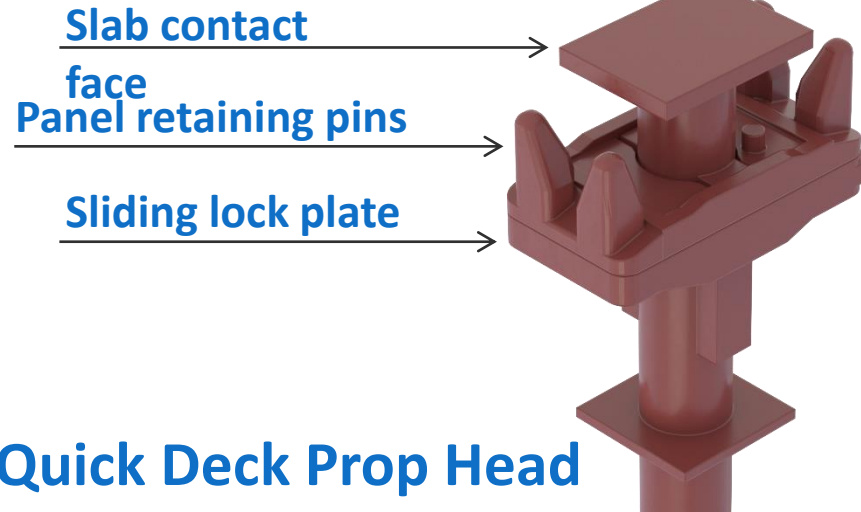
- Quick Deck adjustable props up to 5m heights
- 0.9m x 1.8m panels can form up to 650mm slab thickness
- 1.2m x 1.8m panels can form up to 450mm slab thickness

- Adjustable props with 3.7m and 5m options
- Two standard panels | Heavy duty 0.9m x 1.8m | Standard 1.2m x 1.8m

SIMPLE AND SAFE TO ERECT

Quick Deck is simple and safe to erect with a minimal number of workers and high productivity

- Swivel the panel upwards from below
- Lock panel into quick release prop heads

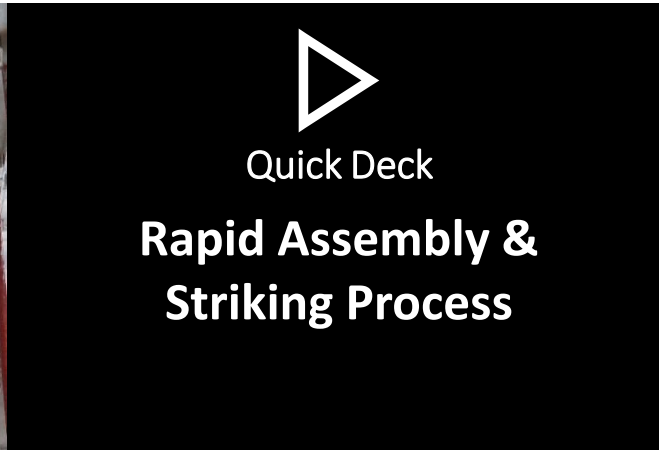


SAFE AND EASY STRIKING WITH DROP HEAD PROP

The quick release Crown Head allows panel removal with the prop in place to support the slab for extended times



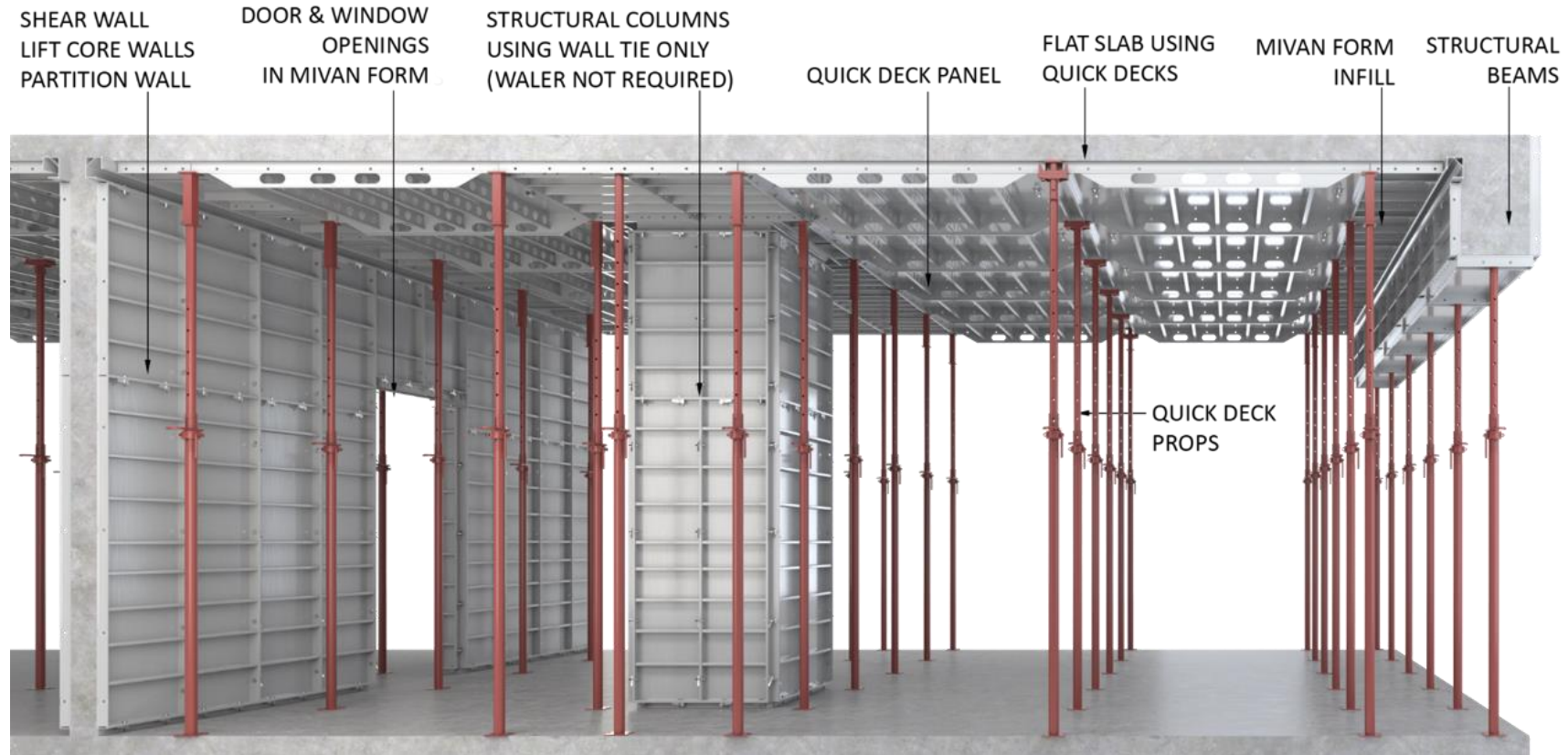
ASSEMBLY & STRIKING



Cantara | Kuala Lumpur, Malaysia

COMPATIBLE WITH ALL MFE FORMWORK

Quick Deck is compatible with all MFE Formwork systems to provide fully integrated slab solutions

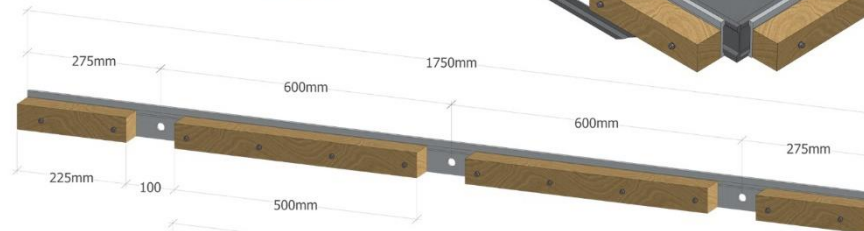
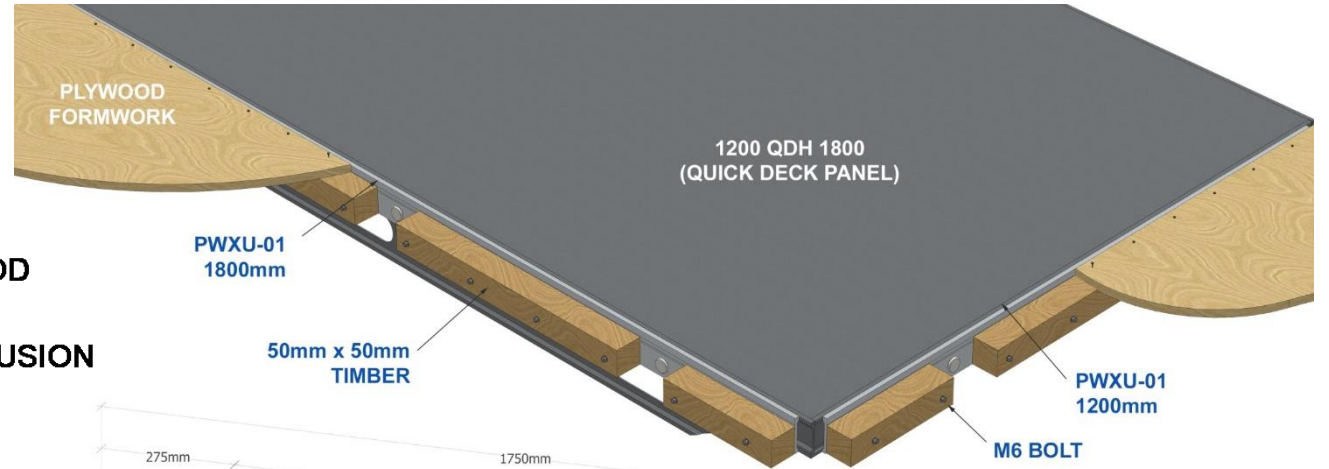
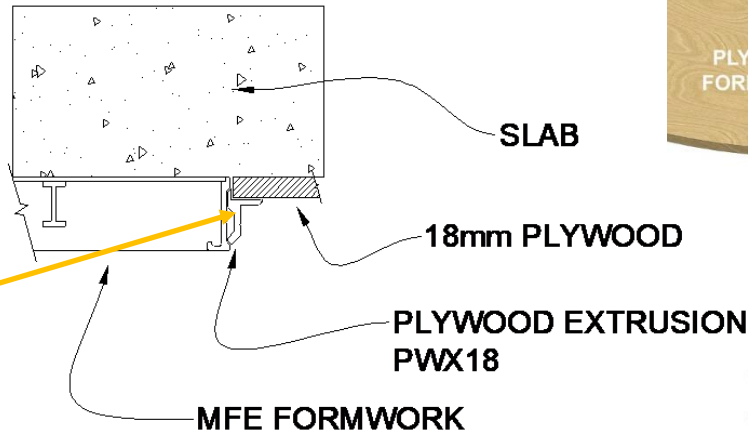
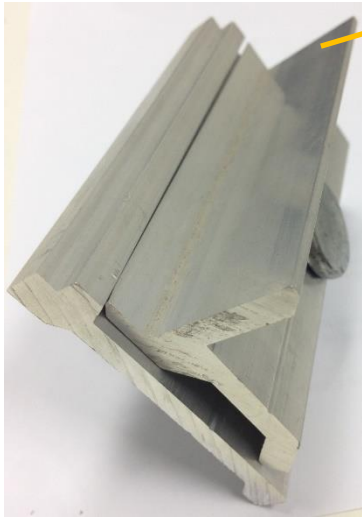


INTEGRATE WITH CONVENTIONAL

Quick Deck can also be integrated with conventional timber/ply for simple in-fill areas, or where sections of the slab are using conventional formwork

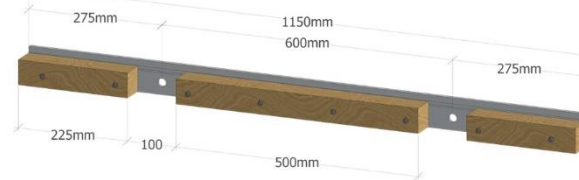
PWX

Ply mount extrusion fixed to QD panel edge



PWXU

Extrusion with wood mounting and nailing form above



KEY SYSTEM BENEFITS



REUSABLE

With **400+ reuses**, ROI is maximised on multiple projects



LIGHTWEIGHT & HANDSET

Standard **1.2m x 1.8m panel weight only 36 kg** so handset system and no heavy lifting equipment or crane time needed



HIGH PRODUCTIVITY

Fast assembly and striking process **Dramatically increases on-site productivity**



COMPATIBLE WITH ALL MFE FORWORK

Able to integrate with all MFE Formwork systems, for complete integrated slab and vertical solutions

MFE-GURKHAS GROUP PROVIDE A COMPLETE SERVICE

From design and manufacturing, logistics and our industry leading technical support team, MFE-Gurkhas Group are able to provide a complete formwork solution for any project, anywhere in the world



WORLD CLASS DESIGN

130 designers experienced in all types of construction projects



HIGH CAPACITY & QUALITY MANUFACTURING

World class, high capacity manufacturing capabilities



WORLDWIDE LOGISTICS

Global logistics planning and management



ON-SITE TECHNICAL SUPPORT

On-site expertise and training provided anywhere in the world



HIGH RISE PROJECT EXAMPLES USING MFE FORMWORK



Cayan Tower | Dubai

MFE Formwork used to construct the iconic 73 floor Cayan Tower in Dubai with a cycle time of 6 days per floor



Kowloon Station | Hong Kong

Our highest building with 88 floors constructed monolithically with MFE Formwork



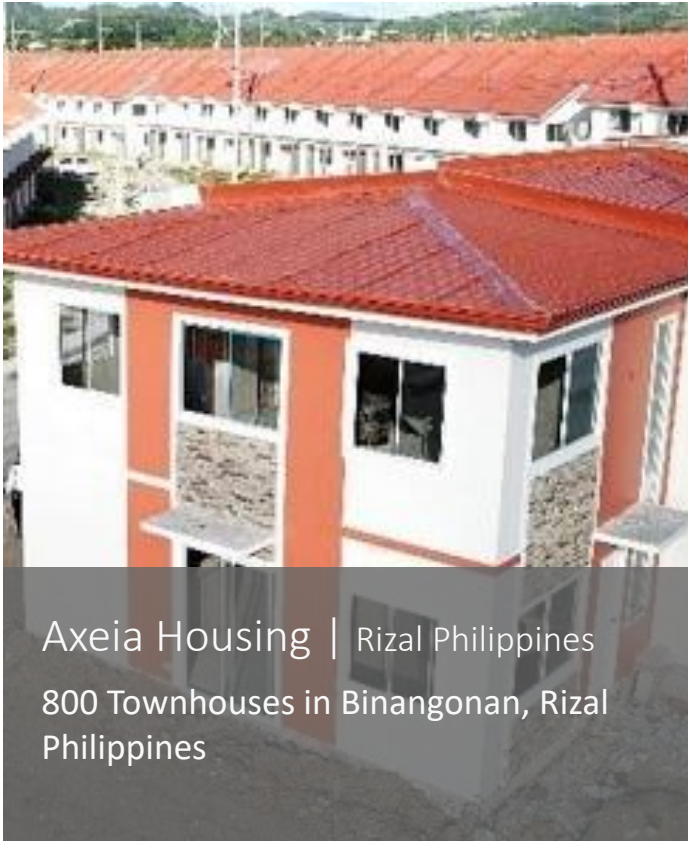
MK 10 Apartments | Kuala Lumpur

Two 43 floor luxury apartment blocks in Mont Kiara, Kuala Lumpur constructed at a rate of one floor every 4 days

MID & LOW RISE PROJECT EXAMPLES USING MFE FORMWORK



HOUSING PROJECT EXAMPLES USING MFE FORMWORK





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formwork
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STAY IN TOUCH WITH
US

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