

RAPIDDECK

MODULAR ALUMINIUM PANEL SYSTEM



“Taking Scaffolding & Formwork to New Heights”

INTRODUCTION

Kirtanlal Scaffolding & Formwork

The Kirtanlal Group of Companies has over 5 decades of experience in providing solutions to the Energy, Construction, Engineering & Industrial Sectors, throughout The Middle East, India, South East Asia, Africa, Europe, Australia, North & South America.

The Kirtanlal Group is a leading distributor in the industrial sector, comprised of a dynamic group of companies dedicated to fueling the needs of the supply chain with its diverse portfolio.

With a commitment to upholding an industry standard we ensure that all our divisions are united in consistently delivering high-quality products and services to our clients and end-users.

Established in 2015, Kirtanlal Scaffolding & Formwork has grown into a trusted provider of Contract Scaffolding, Powered Access, and Formwork Solutions across the UAE, Qatar, and Oman, with expansion into Saudi Arabia and India.

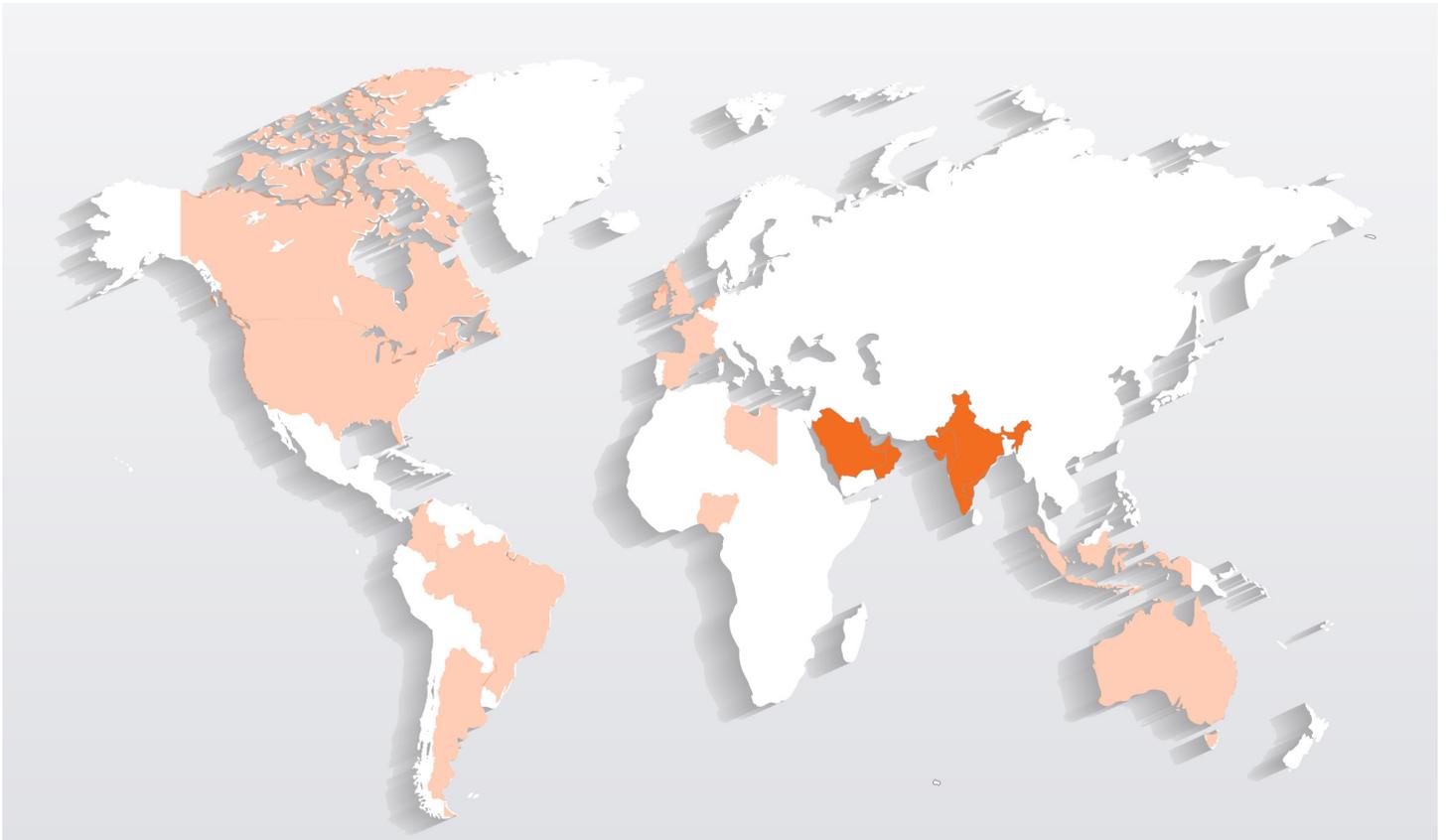
We cater to the Construction, Infrastructure, Oil & Gas, and

Industrial sectors, offering high-grade materials, NEBOSH & IOSH qualified Safety Supervisors, CISRS certified Scaffolders, and in-house Engineering & Design Services. Our team provides on-site training for safe equipment installation and operation.

Committed to Safety, Quality, and Service, we collaborate with reputed third Party inspection agencies for industry-approved safety certifications, ensuring compliance and excellence in every project.

Our Value Engineered Solutions for All Your Access & Formwork Requirements

- ▣ Contract Scaffolding
- ▣ Engineering Services
- ▣ Powered Access
- ▣ Formwork & Access Rental



RAPIDDECK

Introduction

The RapidDeck is a Market-Leading, Modular Aluminium Panel System for Forming Concrete Slab.

The RapidDeck System is designed for efficient and safe concrete slab forming. Capable of supporting slabs up to 300mm thick without additional supports, and up to 550mm with enhanced measures, the system delivers unmatched versatility on-site.

With 25% faster erection and dismantling times compared to conventional systems, it significantly reduces labour costs and shortens the slab casting cycle.



Featuring engineered Drop Heads with a rigid interlocking system, the props ensure enhanced safety by preventing tipping during erection. The integrated Cantilever System offers a secure working platform around the slab perimeter, while the Drop Head allows early panel removal without disturbing the props—ensuring effective back-propping remains in place.

Features & Benefits

-  **Quick Strip:** Panels can be removed without disrupting props or concrete.
-  **Stability:** Interlocking mechanism provides stability against wind loads, crucial in high-wind areas.
-  **Speed:** Up to 40m² can be erected per manhour on open slab applications.
-  **Versatility:** Suitable for all building slab configurations.
-  **Innovative:** Unique slab edge detail saves time & cost. Engineered to handle slabs up to 300mm thick without any extra supports.
-  **High-strength:** Capable of supporting slabs with a depth of up to 550mm.

RAPIDDECK

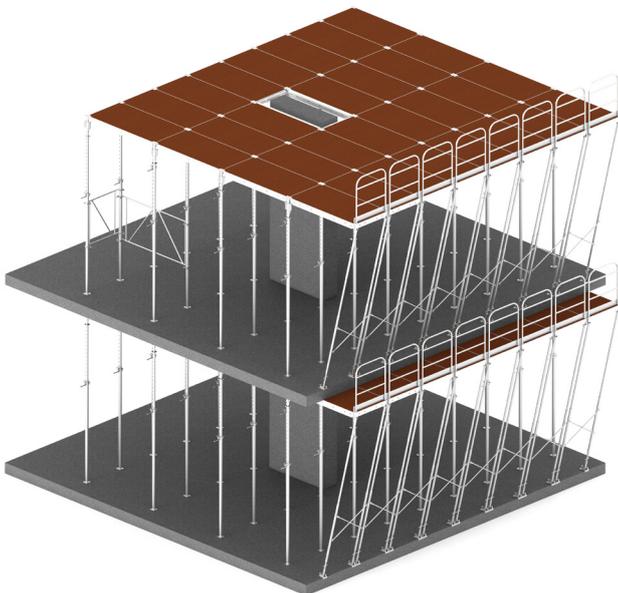
Slab Decking System

The Slab Decking System is highly efficient for achieving a 3-4 day slab cycle in typical projects.

The current shuttering process achieves an impressive speed of approximately 300 sq. ft. per man-hour, while de-shuttering reaches 600 sq. ft. per man-hour. The system features panels that are automatically wind-locked during assembly, ensuring safety and stability when working at heights. Furthermore, it utilizes fewer components than any other system, making it highly efficient and practical for operations at significant heights.

Other Key Features:

- The system is designed for seamless adjustment, allowing varying slab heights to accommodate areas.
- Panels can be safely removed once the concrete achieves a compressive strength of 2,000 psi (13 MPa), without disturbing the props or compromising the structure.
- During assembly, the panels automatically lock to provide resistance against wind forces, particularly in high-wind conditions, making it ideal for slab decking applications.
- The system allows simultaneous erection in four directions.
- It eliminates the need for "X" bracing, maintaining structural stability.



- Fully compliant with ACI, OSHA, NSI, SSFI, ANSI, and BSI standards, ensuring regulatory safety and quality.
- Allows for safe erection and stripping from the floor below, maximising overall operations safety.
- All components are non-welded, ensuring superior durability, easy handling, and last longer.
- Telescopic, side, and end filler beams of the RapidDeck system simplify shoring around columns and other obstacles.

RAPIDDECK

Components



KT-Rapid Panels

Used as a temporary horizontal or vertical structure to support forms and the loads imposed during concrete casting and curing.

Product Codes	Description (Size mm)	Weight (kg)
TDK0PAN1212AL000ML	Panel 1200x1200	26.7
TDK0PAN1260AL000ML	Panel 1200x600	21.0
TDK0PAN1812AL000ML	Panel 1800x1200	44.9
TDK0PAN1860AL000ML	Panel 1800x600	29.9
TDK0PAN2412AL000ML	Panel 2400x1200	54.4
TDK0PAN2460AL000ML	Panel 2400x600	36.9

Material: Alloy 6061-T6
Standard: EN-755

KT-Euro Props

KT-Euro Props is used as the primary vertical members in a falsework application, supporting beams and panels that bear the weight of wet concrete; in applications such as slabs, walls, and columns.

Product Codes	Prop Type	Outer Pipe Dia. (mm)	Inner Pipe Dia. (mm)	Min. Opening Length (mm)	Max. Opening Length (mm)	Weight (kg)
PROBD25250043025GL	BD25	60.3	48.3	1500	2500	14.0
PROCD30300043030GL	CD30	63.5	50.0	1800	3000	17.8
PROCD35350043035GL	CD35	73.5	60.3	2000	3500	20.4
PROCD40400043040GL	CD40	73.5	60.3	2300	4000	25.4
PROCD45450043045GL	CD45	76.1	63.5	2500	4500	30.5
PROCD55550043055GL	CD55	88.9	76.1	3000	5500	37.5

Material: Steel Grade S355/55c, Hot Dip Galvanized (HDG)
Standard: EN-1065



RAPIDDECK

Components



KT-Drop Head

Designed to retain support of the KT- Rapid Panels in a slab forming application. KT-Drop Head allows the formwork panels to be removed shortly after the concrete achieves initial strength.

Product Code	Description	Weight (kg)
TDKPRDH000043000GL	KT- Drop Head	8.7

Material: Steel Grade S275, Hot Dip Galvanized (HDG)

Props Capacity with Drop Head

Props	Opening Length with Drop Head	SWL (kN)
BD25 + Drop Head	Up to 3070mm	20
	Up to 2470mm	30
CD30 + Drop Head	Up to 3570mm	20
	Up to 3070mm	30
CD35 + Drop Head	Up to 4070mm	20
	Up to 3370mm	30
CD40 + Drop Head	Up to 4570mm	20
	Up to 3970mm	30
CD45 + Drop Head	Up to 5070mm	20
	Up to 4370mm	30
CD55 + Drop Head	Up to 5700mm	20
	Up to 5200mm	26
	Up to 4770mm	30



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Components



KT-ADT2 G2 Long (Steel)

Used to put the KT-Panel on the top of the KT-Drop Head on a panel assembly. Made in galvanized Steel.

Product Code	Description	Weight (kg)
TDKADTL100043000GL	KT-ADT2 G2 Long (Steel)	17.2

Material: Steel Grade S235, Hot Dip Galvanized (HDG)

KT-ADT2 G2 Long (Aluminum)

Used to put the KT-Panel on the top of the KT-Drop Head on a panel assembly. Made in Aluminum.

Product Code	Description	Weight (kg)
ALU0ADT000000000ML	KT-ADT2 G2 Long (Alum.)	9.7

Material: Alloy 6061-T6, Self color finish

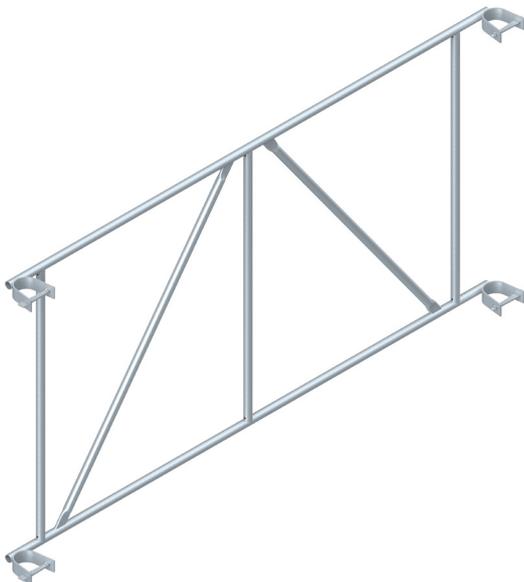


KT-Gate Braces

Used to hold the KT-Euro Props on the first erection to secure the stability of the slab structure during concrete pour.

Product Codes	Description	Weight (kg)
TDK00GB120043000GL	KT-Gate Brace 1200 Type 1	14.8
TDK00GB120043TY2GL	KT-Gate Brace 1200 Type 2 For CD55	15.0
TDK00GB180043000GL	KT-Gate Brace 1800 Type 1	18.4
TDK00GB180043TY2GL	KT-Gate Brace 1800 Type 2 For CD55	18.6
TDK00GB240043000GL	KT-Gate Brace 2400 Type 1	26.3
TDK00GB240043TY2GL	KT-Gate Brace 2400 Type 2 For CD55	26.5

Material: Steel Grade S235, Hot Dip Galvanized (HDG)



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Components



KT-Guardrail Panels

Used to provide fall protection and secure the working environment around elevated platforms. It is installed along the edges of platform for safety particularly when dealing with high-rise or multi-story structures.

Product Codes	Description (Length mm)	Weight (kg)
TDK0GRP120043000GL	KT-Guardrail Panel 1200	14.2
TDK0GRP180043000GL	KT-Guardrail Panel 1800	24.5
TDK0GRP240043000GL	KT-Guardrail Panel 2400	33.0

Material: Steel Grade S235, Hot Dip Galvanized (HDG)

KT-Side Fillers

KT-Side Fillers are installed at the edge of the panel to support plywood where panels can not fit, and to fill irregular gaps on the platform.

Product Codes	Description (Length mm)	Weight (kg)
TDKSDFL120043000GL	KT-Side Filler 1200	5.8
TDKSDFL180043000GL	KT-Side Filler 1800	8.1
TDKSDFL240043000GL	KT-Side Filler 2400	10.8

Material: Alloy 6061-T6, Self color finish



KT-End Fillers

KT-End Fillers are installed at the edge of the panel to support plywood where panels can not fit, and to fill irregular gaps on the platform.

Product Codes	Description (Length mm)	Weight (kg)
TDKEDFL060043000GL	KT-End Filler 600	4.0
TDKEDFL120043000GL	KT-End Filler 1200	6.7

Material: Alloy 6061 T-6, Self color finish



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Components



KT-Telescopic Beams

Used to connect KT-Rapid Panels when there are columns or other structures between the platforms. It helps bridge the gap between the panels at platform.

Product Codes	Description (Length)	Weight (kg)
TDK00TB09004303FGL	KT-Telescopic Beam 3ft.	5.2
TDK00TB23604305FGL	KT-Telescopic Beam 5ft.	7.3
TDK00TB47204310FGL	KT-Telescopic Beam 10ft.	10.0

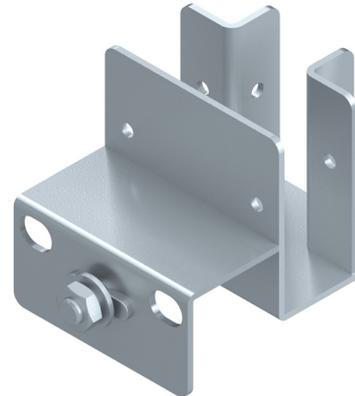
Material: Alloy 6061 T-6, Self color finish

KT-Filler Bracket 2" X 4"

Used when KT-Fillers are not available. It is used to support the timber and fastened by nails.

Product Code	Description	Weight (kg)
TDKFBKT000043000GL	KT-Filler Bracket 2"x4"	0.9

Material: Steel Grade S235, Hot Dip Galvanized (HDG)

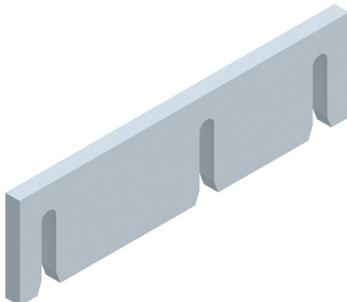


KT-Gravity Lock

Used to secure or lock in place KT-Rapid Panels to KT-Fillers.

Product Code	Description	Weight (kg)
TDKGVTL000043000GL	KT-Gravity Lock	0.2

Material: Steel Grade S235, Hot Dip Galvanized (HDG)



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Components



KT-Cantilever Post C/W Adj. Screw

Used to support cantilever panels in an angular or special structure or when KT-Euro Props are not possible to erect into position underneath KT-Rapid Panels.

Product Code	Description	Weight (kg)
TDKCTPT100043000GL	KT-Cantilever Post C with Adjustable Screw	17.3

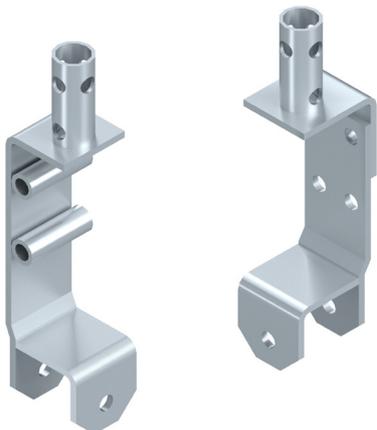
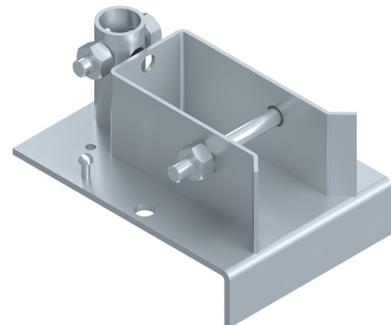
Material: Steel Grade S235, Hot Dip Galvanized (HDG)

KT-Edge Mounting Shoe

Located at the foot of the props, used as connecting plate fastened at ground and connected to the KT-Cantilever Post to provide reliable stability for the falsework.

Product Code	Description	Weight (kg)
TDK0EMS100043000GL	KT-Edge Mounting Shoe	2.1

Material: Steel Grade S235, Hot Dip Galvanized (HDG)



KT-Panel Connectors

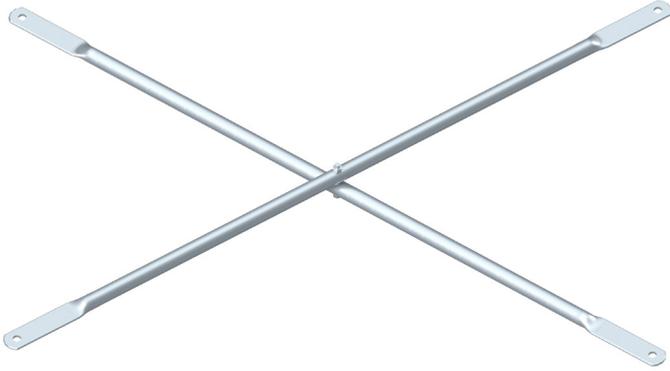
Used to connect KT-Rapid Panel and KT-Cantilever Post.

Product Codes	Description (Length mm)	Weight (kg)
TDK0EPC100043000GL	KT-End Panel Connector	1.8
TDK0SPC100043000GLL	KT-Side Panel Connector	2.0

Material: Steel Grade S235, Hot Dip Galvanized (HDG)

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Components



KT-Cross Braces

Connected to the KT-Cantilever Post for additional stabilizer for the falsework.

Product Codes	Description (Length mm)	Weight (kg)
TDK00XB120043000GL	KT-Cross Brace 1200	3.9
TDK00XB180043000GL	KT-Cross Brace 1800	5.5
TDK00XB240043000GL	KT-Cross Brace 2400	7.2

Material: Steel Grade S235, Hot Dip Galvanized (HDG)

KT-Safety Chain

Used to connect and lock the KT-Cross Brace to the props.

Product Code	Description	Weight (kg)
TDKSFTC100043000GL	KT-Safety Chain	0.2

Material: Steel Grade S235, Painted



KT-Safety Red Pin

Used to connect and lock the KT-Cross Brace to the props.

Product Code	Description	Weight (kg)
TDKSFTR100043000GL	KT-Safety Red Pin	0.2

Material: Steel Grade S235, Painted



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Components



KT-Stripping Bar

Used to loosen or tighten the thread nut around the KT-Euro Props.

Product Code	Description	Weight (kg)
TDKSTBR00000000000	KT-Stripping Bar	1.7

Material: Steel Grade S235, Hot Dip Galvanized (HDG)

KT-Cantilever Post Extension

Used as an extended tube to Cantilever Post.

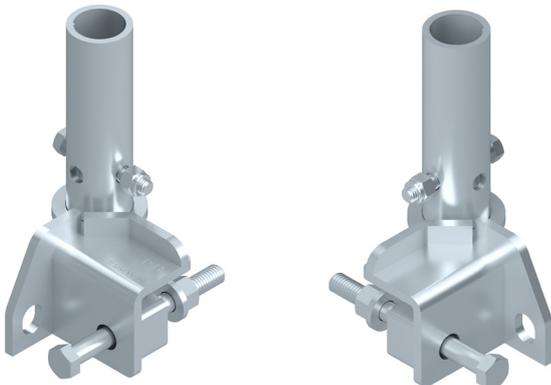
Product Code	Description	Weight (kg)
TDKCTPE00000000000	KT-Cantilever Post Extension	4.5

Material: Steel Grade S235, Hot Dip Galvanized (HDG)



KT-Guardrail Post Connector w/ Tube

Used as an alternative to Guardrail in a conventional formwork.



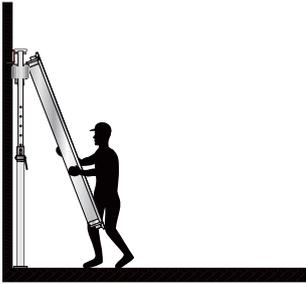
Product Codes	Description	Weight (kg)
TDKGRPC1500430RHGL	KT-Guardrail Post Connector with Tube (RH)	6.7
TDKGRPC1500430LHGL	KT-Guardrail Post Connector with Tube (LH)	6.7

Material: Steel Grade S235, Hot Dip Galvanized (HDG)

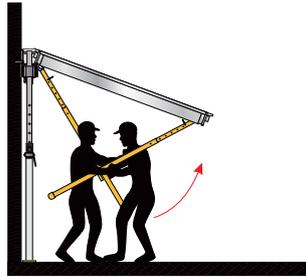
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Assembly

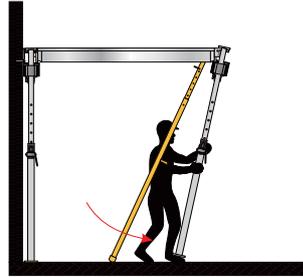
Simple Erection Guide



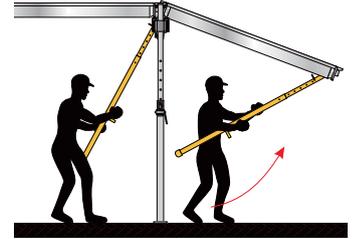
■ The Panel is hung on to the Prop.



■ The Panel is rotated (lifted) to the horizontal position and supported with the ADT.



■ Next the Prop is slipped into position, locking into and supporting the Panel.

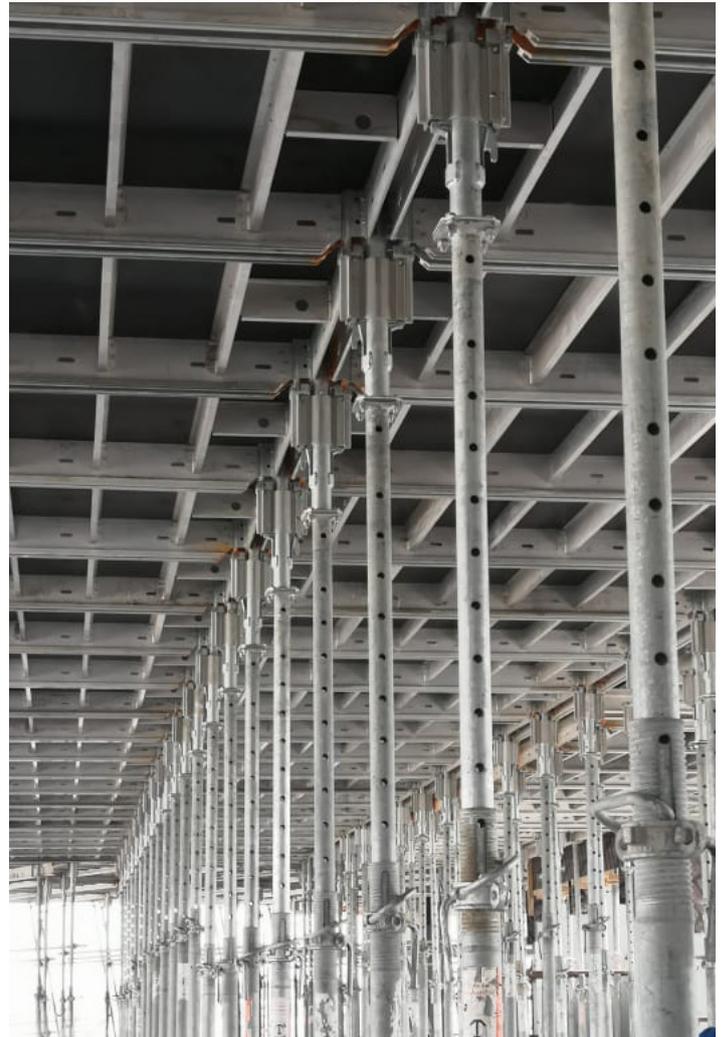


■ Erection continues by repeating steps 1, 2, and 3.

The RapidDeck System is an innovative shoring solution designed to be assembled from the working floor up to a standard height of 4050mm. With the addition of a Prop Extension, the system can be extended to a maximum height of 5050mm. Its adaptable design accommodates drop bands, dropheads, and various structural interruptions, ensuring seamless integration. The Prop, featuring an integrated Drophead, simplifies both erection and dismantling, while maintaining back propping stability throughout the process.

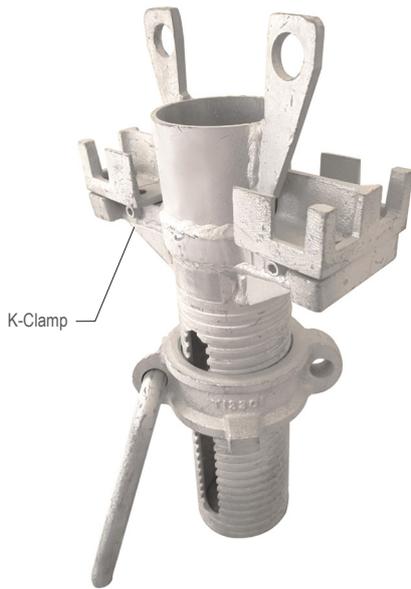
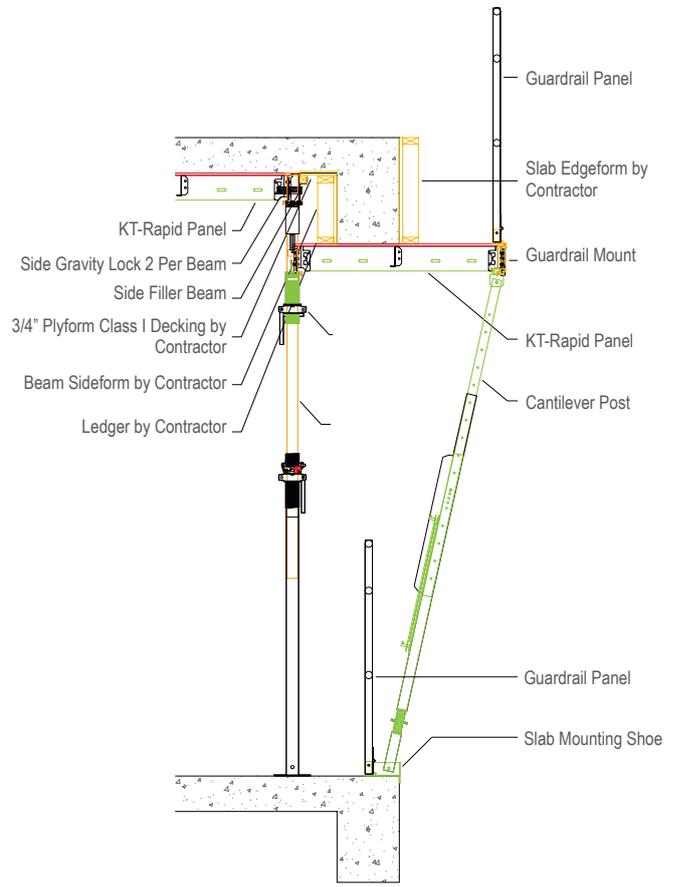
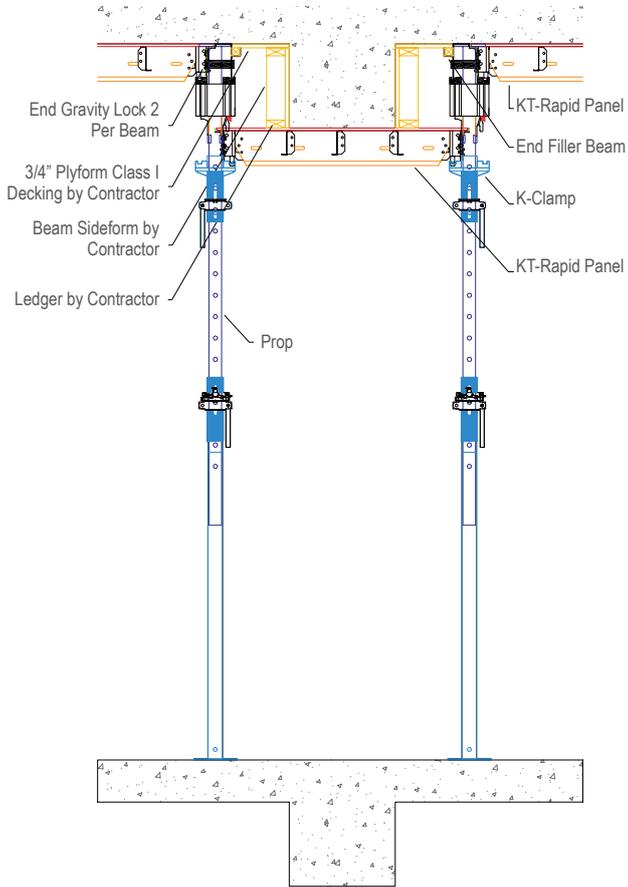
Our standard Prop is available at 4050mm, with the Prop Extension enabling an additional height increase to 5050mm when required.

The system's panels include fasteners, providing a Knocked Down (KD) option for efficient container shipping. This feature also allows qualified personnel to quickly replace damaged components, enhancing both versatility and ease of maintenance.

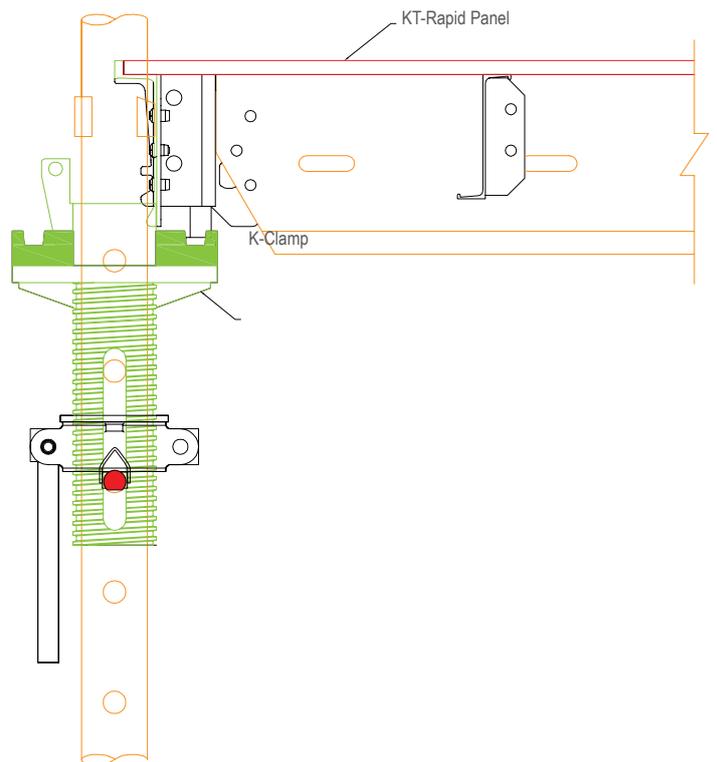


RAPIDDECK

Engineering



Drop Head Panel Support

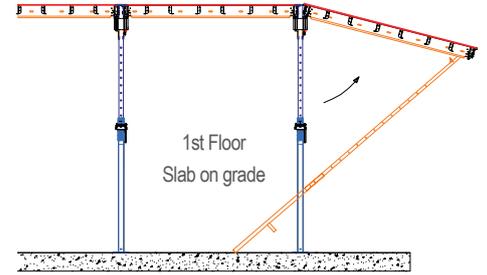


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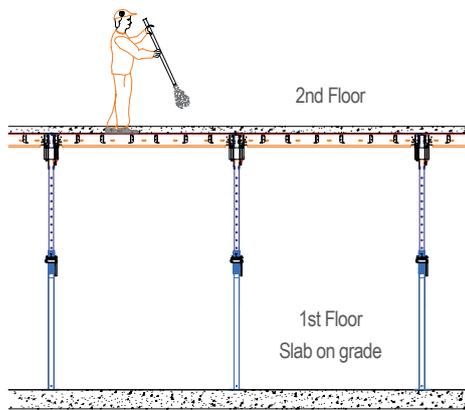
Shoring, Backshoring & Reshoring

Typical Multi-floor Construction Process

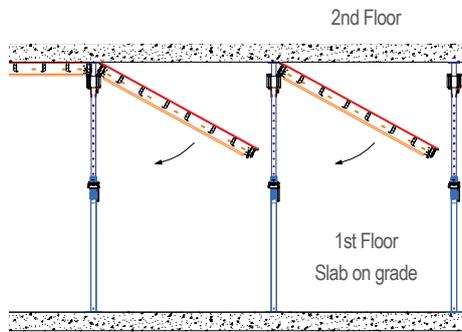
Convert the lowest level of Props from backshoring to reshoring by striking the Quick Release above the prop collar. Release the load in the section as required by Site Engineers. Allow the floor to "Take Up" self weight then snug up the Props.



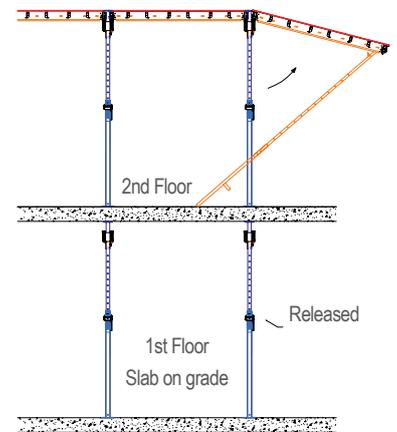
- Erect RapidDeck System from floor slab.



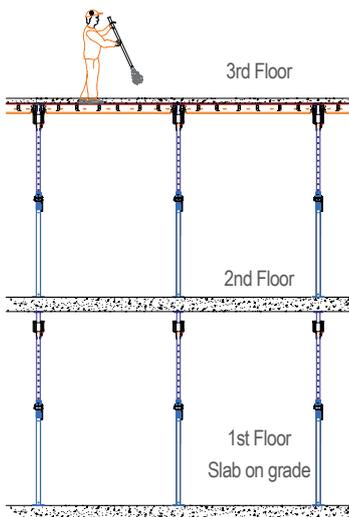
- Shoring complete, pour second floor.



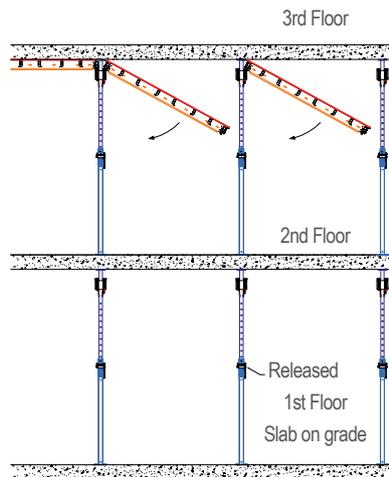
- Once Concrete Reaches 2000 psi, remove Panels. Leave Props undisturbed.



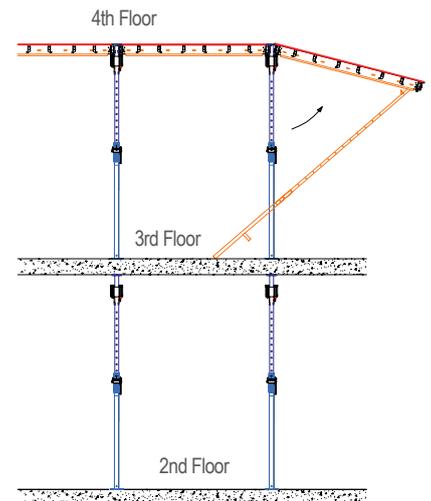
- Erect third floor with additional props. Leave Props undisturbed.



- Shoring for third floor complete, pour third floor.



- Once Concrete reaches 2000 psi, remove Panels from under the floor. Leave Props undisturbed.



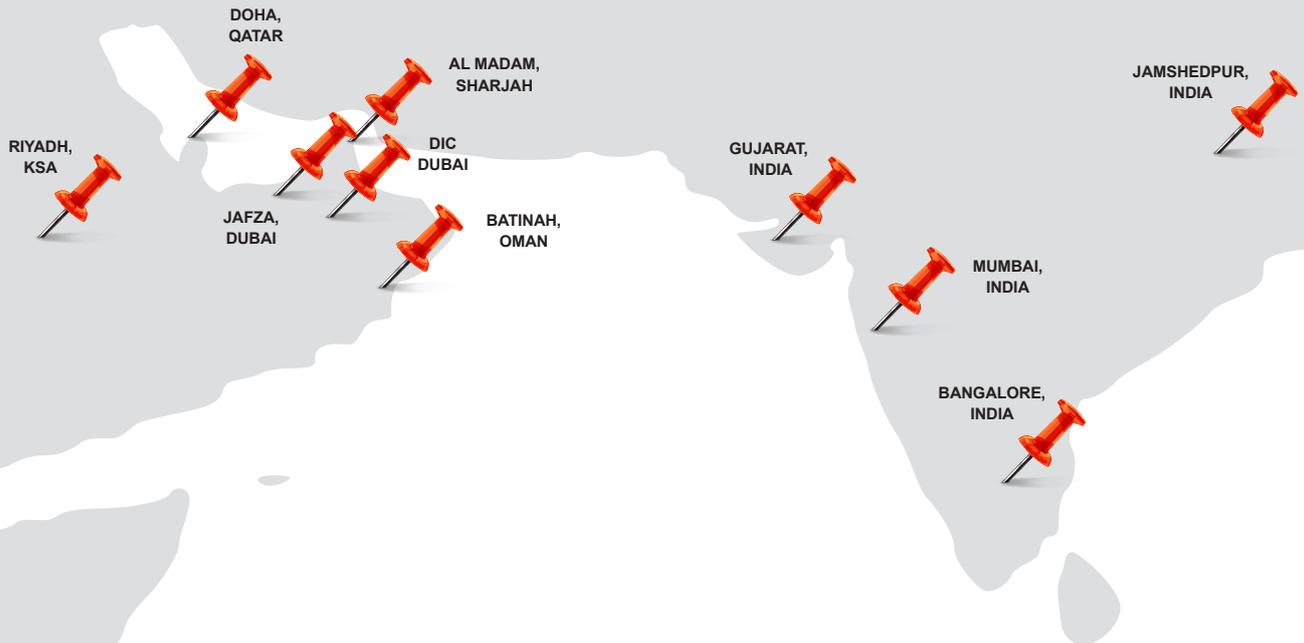
- Remove Props supporting second floor and recycle them to the third floor.



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