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ABOUT K-NEST CONSTRUCTION TECH



K-nest Manufacturers Private Limited (KMPL) is a construction technology company with advanced technologies & offerings for infrastructure development projects worldwide.

Founded in 2014 with a clear vision to transform the way developers build, K-nest delivers precision aluminium formwork that ensures speed, strength, and scalable growth.

With three state-of-the-art factories in Pune and one in Ahmedabad, K-nest commands the largest production capacity in the country-capable of delivering 2,50,000 sq. mt. per month. This is not growth by chance; it is growth by design, powered by relentless precision and uncompromising quality. From formwork to future-ready systems, K-nest is setting industry benchmarks in efficiency, scale, and trust.

As the only Indian aluform company with an exclusive MOU in Saudi Arabia, K-nest is taking Indian engineering to the global stage, exporting to eight countries, with a dedicated Riyadh facility on the horizon.

The ambition goes further. By venturing into Perimeter Safety Screens (PSS) and Pre-Engineered Buildings (PEB), K-nest has strategically extended its offerings. Today, it is India's largest PSS manufacturer, driving its next wave of growth across GCC and global markets.

FROM THE CHAIRMAN'S DESK





Construction has always been one of the enduring pillars of human progress. It shapes not only the skylines of our cities, but also the strength of our communities and the scale of our aspirations. Since its inception, K-nest has been dedicated to reinforcing this pillar with world-class aluminium formwork and advanced construction technologies delivered with precision, powered by innovation, and anchored in a deep commitment to care.

As a proud Indian multinational, we believe our role extends far beyond engineering solutions. We are contributing to nation-building by creating opportunities, generating employment, and driving India's growth story onto the global stage. Every square meter we produce, every system we design, and every project we enable carries within it the vision of an India that builds for itself and for the world.

Anchored by cutting-edge technology, we continue to transform construction into a process that is faster, cleaner, leaner, and greener without compromise. Our partnerships with developers across continents are not just about delivering solutions; they are about turning vision into reality, enabling landmark projects, and shaping skylines that inspire generations.

What lies ahead is a horizon of possibilities, matched only by the responsibility we carry. With every challenge comes an opportunity to build bigger, better, and more sustainably. It is both our privilege and purpose to walk this path together, building not just structures, but a future that India and the world can be proud of.

Nitin Mittal

Chairman & Managing Director

VISION



To be the most trustworthy & innovative global service provider of sustainable construction technology solutions.

MISSION



To build the world's largest construction-tech solutions company.

To develop a global footprint as an Indian multinational enterprise.

To lead the construction-technology ecosystem by building capacity in design, manufacturing, & site support.

To shape an open, collaborative & empowering work environment for all employees.

To deliver consistent value to stakeholders in infrastructure development through innovation & imagination.

To enhance efficiency & customer delight with quality calibrated products & services.

To help save more than 1 crore trees.





2014

2017

Foundation

An endeavour to help real estate build better

An ambition of developing world-class solutions in & from India

Perfecting Product

Engineering & reengineering with the best raw materials (6061 T6 Aluminium Alloy), best machines (Robotic Welding & FSW) and best technicians

Building Relationships

Spreading awareness & assimilating technology to every stakeholder

R&D Calibration

Scaling investment in innovation & patents - VR Visualisation, Modular Systems, Sensors & more

2015

2019



2020-21

2023-24

Leading Capacity

Focusing on team building

Recalibrating sourcing & processes

Expanding production infrastructure with automation in the face of global disruption

Consolidating Market Leadership

MOU with the kingdom of Saudi Arabia, national-level marketing Engagement, community interaction & Opening of new factory in Ahmedabad

India's Largest in Production Capacity

International Expansion

Focusing on emerging markets & developing presence through exports in 8+ countries

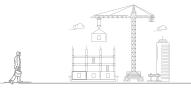
K-nest Construction Tech

A paradigm shift towards allied offerings in construction tech

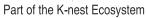
2022

2025



















With the World's Most Advanced Assembly Lines



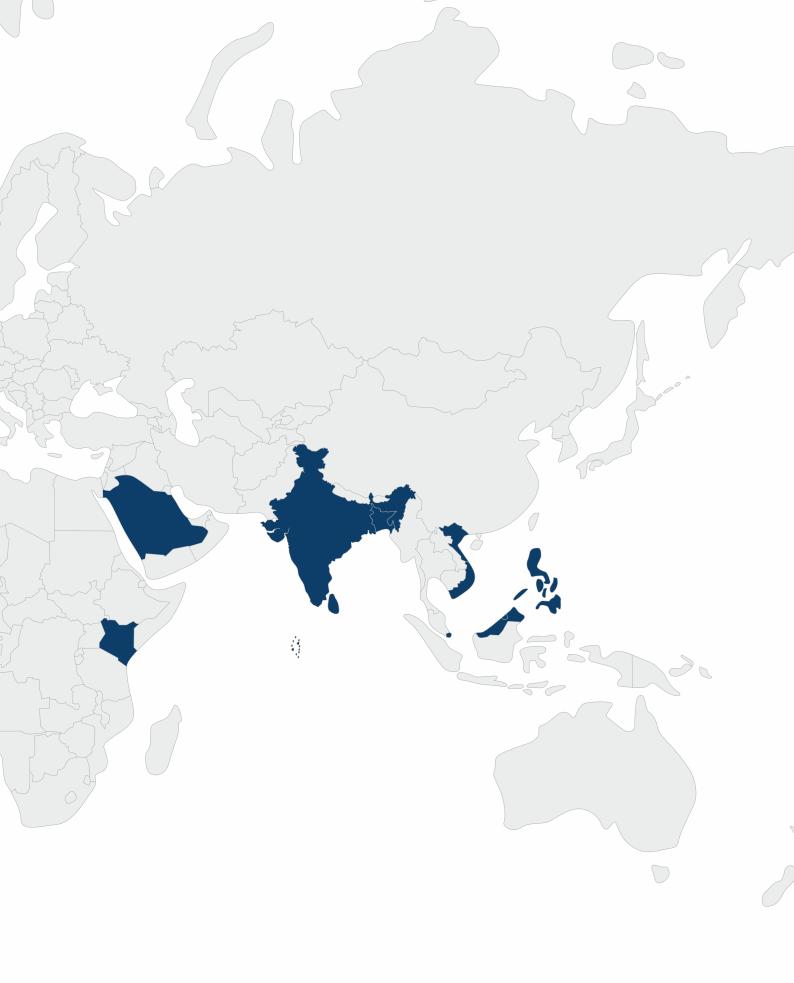


Filed for Products, Execution & Process Automation



Across Continents & Development Stages

Across India, MENA & SEA Regions





























K-nest Aluminium Formwork

India's largest & the world's fastest-growing aluminium formwork company

K-nest Deck Formwork

India's durable formwork for seamless slab building

k-nest PSS

India's largest self-climbing safety screen solutions

K-nest Self-Climbing Formwork

India's crane-free self-climbing formwork solution

k-nest ccs

India's most efficient climbing system for high-rise core walls

Ik-nest Vertix

India's multi-purpose modular formwork for walls and columns

It-nest Stratix

India's next-gen slab formwork, designed to be smart, simple, and superior

K-nest Table Formwork

India's smart slab formwork for safer, quicker, consistent builds

Ik-nest PEB

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Dr.O.W.L

India's pioneering Al-driven mobile system for material testing

K-nest Aluminium Formwork

India's largest & the world's fastest-growing aluminium formwork company

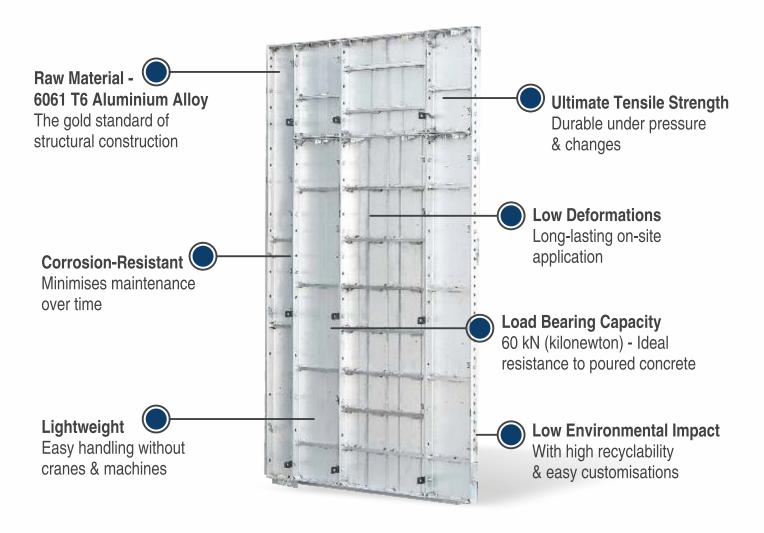
K-NEST ALUMINIUM FORMWORK

A best-in-class formwork technology that is flexible, lightweight and easy to install, used for the construction of all types of Reinforced Concrete Cement (RCC) structures, including high-rise buildings, complex architecture and unique facades. The system technology can be monolithic or modular in the form of Deck Systems, Staircase, Lift, Core or Column Systems.

It provides faster slab cycles, better dimensional accuracy, a superior concrete finish, repeatability, and recyclability.



K-NEST ALUMINIUM FORMWORK



6061 T6 VS. OTHER ALUMINIUM ALLOYS

Alloy	Heat Treatable	Common Tempers	Strength	Corrosion Resistance	Notes
6061-T6	৶	T6, T4, O	High	Excellent	Balanced properties, widely used
7075-T6	❖	T6, T73	Very High	Moderate	Stronger than 6061, but less corrosion-resistant
5052-H 32	×	H32, H34	Moderate	Excellent	Non-heat-treatable, good for marine use
2024-T3	≪	Т3	High	Poor	High strength, but poor corrosion resistance
5083-H 111	×	H111, H116	High		

6061 T6 VS. OTHER ALUMINIUM ALLOYS

Material	Strength	Corrosion Resistance	Machinability	Weldability	Notes
6061-T6 Aluminium	High (Tensile ~310 Mpa)	Good (can be anodized)	Excellent	Good (needs care)	Ideal for structural & machined parts
5052-H32 Aluminium	Moderate (~270 MPa)	Excellent (marine-grade)	Fair	Excellent	Best for sheet metal & marine use
Mild Steel	High (~250–400 Mpa)	Poor (needs coating)	Good	Excellent	Heavy, prone to rust, low cost

BENEFITS OF 6061 T6

Property	Typical Value	Unit	Description
Tensile Strength	290–310 Mpa	Megapascals (Mpa)	Maximum stress before breaking
Yield Strength	~276 Mpa	Мра	Stress at which permanent deformation begins
Elongation at Break	8–10%	%	Ductility; ability to stretch before breaking
Brinell Hardness	~95	НВ	Resistance to indentation
Fatigue Strength	~96 Mpa	Мра	Resistance to cyclic loading
Modulus of Elasticity	~68.9 Gpa	Gpa	Stiffness of the material
Density	2.70 g/cm ³	g/cm³	Lightweight nature of the alloy

MANUFACTURING PROCESS



1. Quality Check



3. Punching

2. Cutting

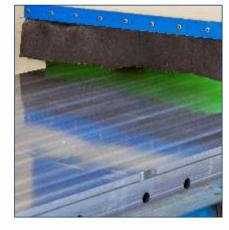


4. Milling



MANUFACTURING PROCESS







5. Robotic Welding

7. Lacquering

9. Ready for Dispatch

6. Buffing



8. Barcode Scanning

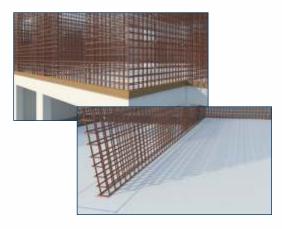






EXECUTION DAY FLOW

Installation Process of K-nest Aluminium Formwork System



DAY 1

Structural Lines are marked & MEP Work is initiated as recommended by the RCC Consultant. Vertical Reinforcement Work on the base level is executed by installing reinforcing bars.

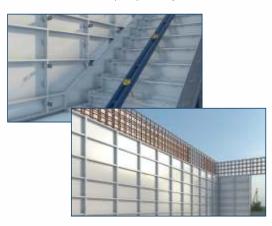


DAY 3

Roof/Deck Panels & supporting components are installed. They can be standard or part of the proprietary K-nest Deck System.



Panels (Internal, External, Side, & Corner) are installed along with supplementary Mild Steel (MS) Components.

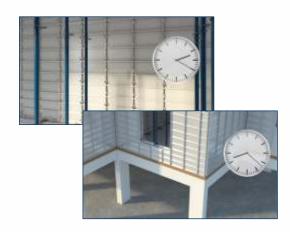


DAY 4

Horizontal Reinforcement Work on the roof level is executed by installing reinforcing bars.



EXECUTION DAY FLOW



DAY 5

Concrete is poured into the entire K-nest Formwork System for monolithic construction. Due precautions are taken for proper curing, drying & casting.

DAY 6

All panels are removed with due precaution as part of the Deshuttering Process.



The structure is ready for the next slab and/or finishing work.

Note:

All specialised systems such as Lifts, Staircases, Pillars, etc, follow the same process. The time taken on each site may vary depending on key factors like temperature, technology, methodology, labour, etc.

ALUFORM COMPONENTS

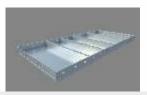
Wall Panel



Details

Used for the walls of the formwork system Specifications
100 to 600 x 2400 (Length x Breadth)

Slab Panel / Deck Panel



Details

Used for the slab/roof of the formwork system Specifications: 150 to 600 x 1200 (Length x Breadth)

Soffit Length (SL)



Details

Used to connect wall & slab panels vertically

Mid Beam



Details

Used to connect prop head and end beams

Incorner (IC)



Used for corners where two wall panels join

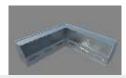
T Panel



Details

Used between wall panels & slab panels

Soffit Corner (SC)



Details

Used to connect the wall panel and slab panel at the in-corner position

Soffit Corner (SCE)



Details

Used to connect the wall panel and slab panel at the out-corner position

Kicker Corner (KC)



Used to support the wall panels for the next floor at the in-corner position

End Beam



Details

Used to connect prop head and middle beam

Plate Cover End (PCE)



Details

Used to cover plate at upstand cover panel

Joint Bar



Used to connect a prop head between middle and end beams

Rocker Nut & Bolt



Details

Used to provide adjustable connections between panels

Wing Nut



Details

Used with Tie Rods to tighten the brackets

Push Pull Prop



Details

Used to support & stabilise vertical formwork panels

Nose Piller & Spanner



Details

Used for tightening nut bolts

Rocker



Used for alignment & easy removal of wall panels

Panel Puller

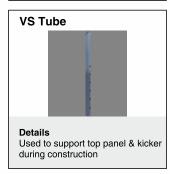


Details

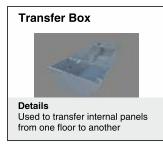
Used to remove & adjust panels

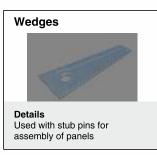
MILD STEEL COMPONENTS - ACCESSORIES

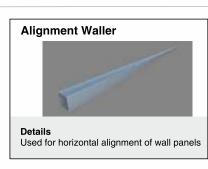


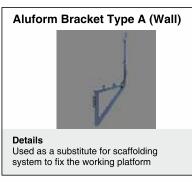


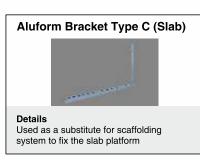












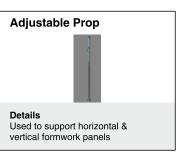














BUILDING NATIONS - ONE PROJECT AT A TIME



BUILDING NATIONS - ONE PROJECT AT A TIME



K-nest Deck Formwork

India's durable formwork for seamless slab building

K-NEST DECK FORMWORK

The deck system is a precision-engineered, lightweight aluminium formwork solution designed for the rapid construction of large slab areas. Its optimised design minimises labour requirements while ensuring high durability and offers seamless compatibility with both monolithic and conventional formwork systems.



K-NEST DECK FORMWORK TECHNICAL SPECIFICATIONS

Feature	Description
Standard Size	900 × 1800, 900 × 1500, 900 × 1200
Extrusion Panel	450 mm, welded together with FSW technology
Side Rail	140 mm
Top & Bottom Rail	65 mm
Sheet Thickness	4 mm
Weight	32 kg
Repetition	Usable 200+ times
Maximum Slab Thickness	Up to 500 mm
Applications	Suitable for all types of slabs, PT slabs, and flat slabs
Compatibility	Can integrate with monolithic as well as conventional formwork

k-nest pss

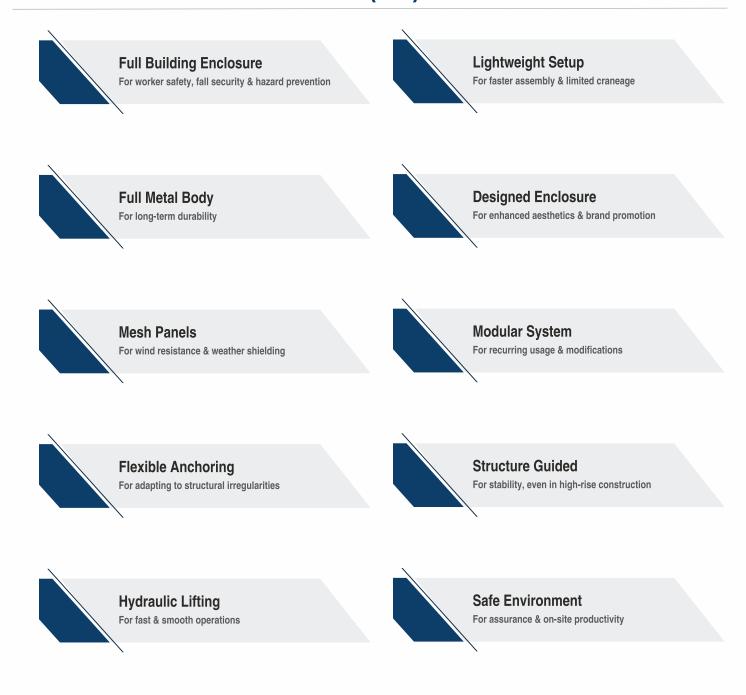
India's largest self-climbing safety screen solutions

K-NEST PERIMETER SAFETY SCREEN (PSS)

Knest Perimeter Safety Screen (PSS) System is an advanced perimeter safety screen setup that can be combined with a self-climbing platform apparatus. Developed to ensure additional protection for the on-site workers & increase the efficiency of construction, it is lightweight, hydraulic, structure-guided & user-friendly.



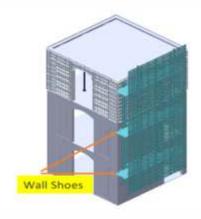
K-NEST PERIMETER SAFETY SCREEN (PSS)



K-NEST PERIMETER SAFETY SCREEN (PSS)

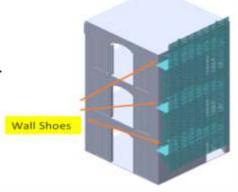
Step 1: Installation

Covers three floors, including the shuttering level. Wall brackets installed on Levels 1 and 2.



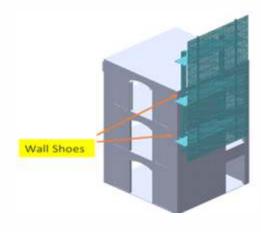
Step 2: Preparation

Install shoes on the shuttering level after removing panels. Prepare for Level 1 shoe removal and PSS lifting.



Step 3: Lifting

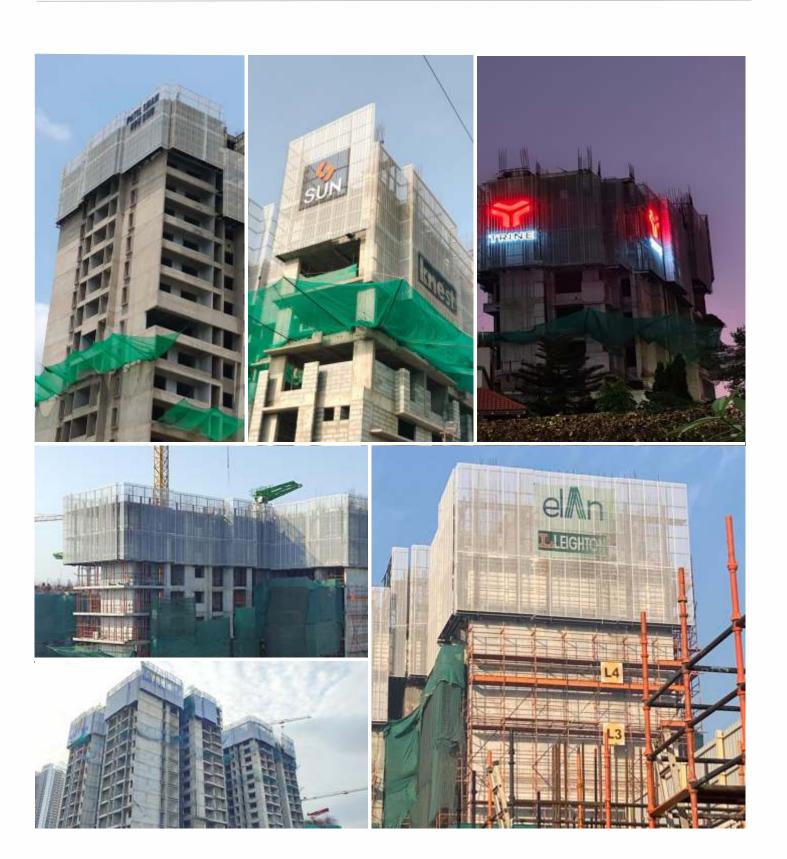
Lift the PSS platform using floor hydraulics or a crane. Remove the Level 1 mounted shoe.



MAKING CONSTRUCTION SAFE & EFFICIENT - ONE PROJECT AT A TIME



MAKING CONSTRUCTION SAFE & EFFICIENT - ONE PROJECT AT A TIME



K-nest Self-Climbing Formwork

India's most efficient climbing system for high-rise core walls

K-NEST SELF-CLIMBING FORMWORK

A self-climbing formwork is a mechanized vertical construction system designed for high-rise buildings, cores, lift shafts, and bridge pylons. Powered by hydraulic jacks, it climbs independently without crane support, ensuring continuous operation and faster cycle times. The system enhances safety with enclosed working platforms, reduces labour dependency, and delivers superior efficiency in repetitive vertical structure construction.



K-NEST SELF-CLIMBING FORMWORK BENEFITS



Efficient & Safe

Enables high-rise concrete construction with fully automated, self-climbing operation



Time-Saving

Speeds up construction cycles by eliminating the need for external cranes or manual repositioning



Versatile Application

Ideal for core walls, elevator shafts, and vertical structures of all types



Superior Stability

Engineered for maximum structural integrity and worker safety during formwork cycles



Cost-Effective

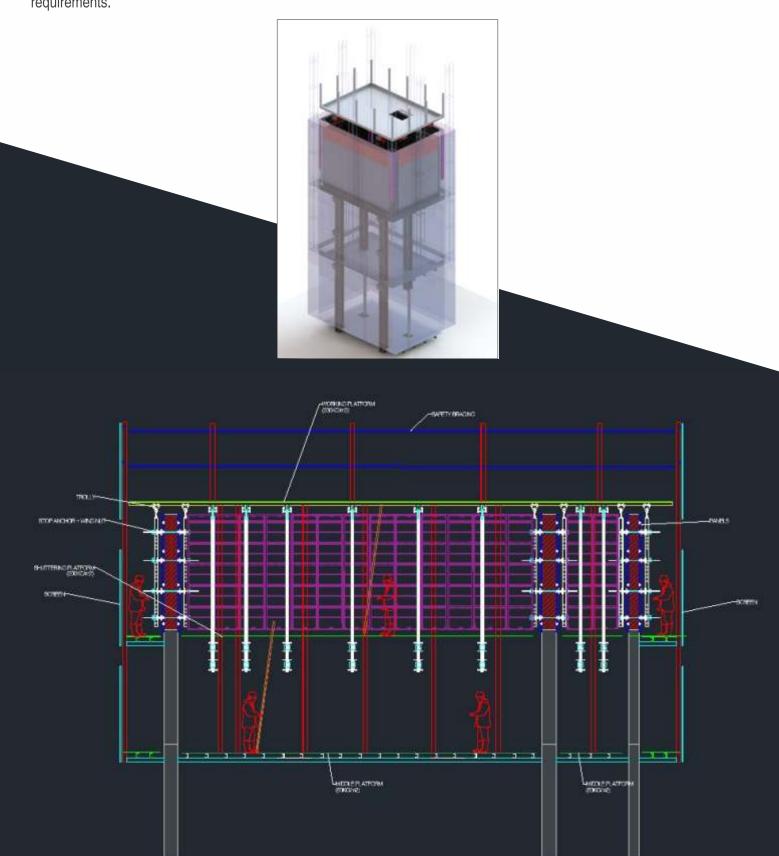
Reduces labor and equipment costs while boosting productivity on large-scale projects

k-nest ccs

India's most efficient climbing system for high-rise core walls

K-NEST CORE CLIMBING SYSTEM (CCS)

The K-nest Core Climbing System (CCS) is a precision-engineered formwork solution designed to revolutionize high-rise core wall construction. Combining speed, safety, and reusability, CCS ensures faster cycle times, superior finish quality, and reduced labor requirements.



K-NEST CORE CLIMBING SYSTEM (CCS)

Three Platforms. One Seamless Cycle.

The CCS employs a three-platform configuration, with each platform engineered for a distinct function to enable precise, uninterrupted operation throughout the formwork cycle:



Typical Applications

Designed for maximum vertical construction efficiency.



Optional K-nest Add-Ons



K-NEST CORE CLIMBING SYSTEM (CCS)

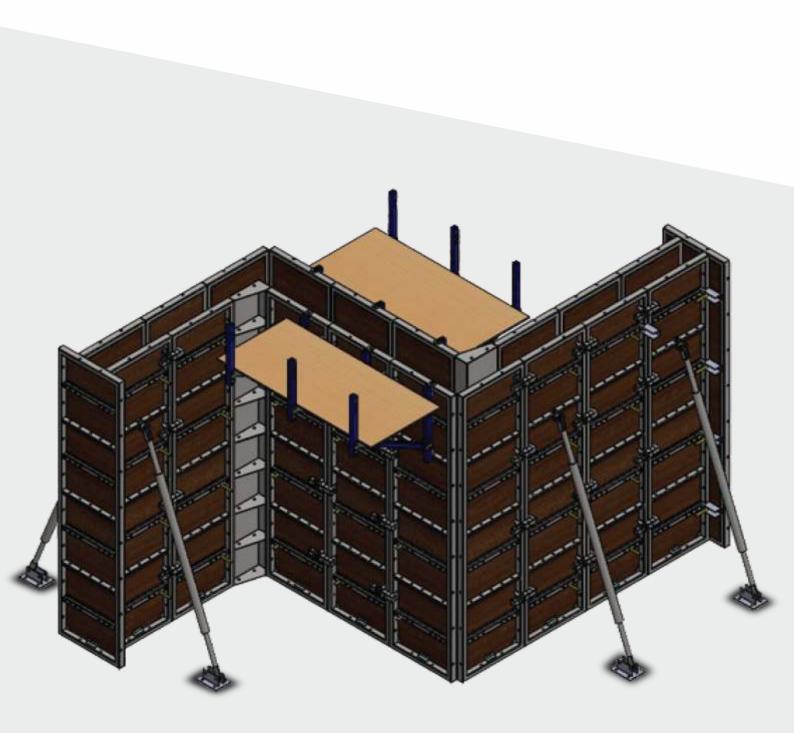
Category	Benefits	Description
Key Component Details	Stripping Corner Mechanism	Retracts four internal panels simultaneously; available in manual screw or hydraulic actuator options.
	Formwork Panels	Steel or aluminium; smooth concrete-friendly finish; designed for 100+ reuse cycles.
	Guide Rails	Maintain precise panel alignment during retraction and extension.
	Support Beams	Structural backbone; safely transfers load from platforms to building structure.
	Working Platforms	Three levels with guard rails, toe boards, and ladders for safe operation.
	Lifting Brackets	Crane-ready for lifting the entire CRS unit in a single move.
	Access Ladders	Built-in vertical mobility between all three platforms.
Performance & Safety Specs	Platform Load Capacity	300 kg/sq.m (supports rebar, tools, and workers).
	Cycle Time	Panel retraction & resetting in under 30 minutes.
	Reusability	100+ cycles with proper maintenance.
	Safety	Guard rails, toe boards, and compliance with standard site safety norms.
Benefits at a	Safe & Controlled Retraction	A mechanized or manual system ensures risk-free panel removal.
Glance	Superior Finish	Smooth surface for minimal patching or rework
	Reduced Labor & Costs	Less manual effort, fewer defects, lower repair costs.
	Faster Construction	Accelerates floor-to-floor cycle times in high-rise core construction.

K-nest Vertix

India's multi-purpose modular formwork for walls and columns

K-NEST VERTIX

The K-nest Vertix Panel Formwork is a modular, multi-purpose system designed for wall and column applications. With multi-directional usability, flexible panel sizes, and minimal training requirements, it enables rapid and crane-free assembly by just two workers, ensuring seamless adaptation to varied site conditions.



PRODUCT OVERVIEW

System Type	Modular, multi-purpose panel formwork system
Applications	Wall and column formwork
Panel Orientation	Multi-directional (usable in any direction)
Panel Sizes	3 heights 1200mm 2400mm 3000mm
T dilet Gizeo	3 widths 450mm 600mm 900mm
Configuration Advantage	Maximum flexibility with minimal unused formwork area
Assembly	Crane-free, easy assembly by two people
Training Requirement	Minimal

TECHNICAL SPECIFICATIONS

Parameter	Value
Wall Pressure Capacity	Up to 60 kN/m ²
Column Pressure (≤600×600 mm)	Up to 75 kN/m ²
Column Pressure (650–900 mm)	Up to 60 kN/m ²
Compliance Standards	DIN EN 18218 (Concrete pressure)

SYSTEM CAPABILITIES

Feature	Details
Infill Support	Up to 3000mm
Connection Types	Supports 90° internal & external corners, T-junctions, and stop-ends
Material	High-grade steel frame with 12mm resin-coated plywood
Surface Finish	Smooth concrete finish
Stiffeners	Closed, outward facing to prevent slurry build-up

FUNCTIONAL & STRUCTURAL HIGHLIGHTS

Features	Description
Fast Working Operations	Each standard panel also functions as a multi-purpose panel, enabling quicker assembly and fewer panels.
Adjustment with Multi-Holes	Expands usability for beams and foundations, improving system flexibility - reducing material clutter
Integrated Ergonomic Attachments	Enables easy manual handling and acts as a secure point for PPE attachment
Easy Connections for Push Pull	Direct connection point for push-pull props
Closed Stiffeners	Enhances panel strength and prevents slurry buildup during concrete pouring.

CLAMPING CONNECTIONS

Features	Description
Simple Panel Connections	Panels connect using a unique alignment clamp or wedge clip, ensuring quick and secure assembly.
Low Component Count	Minimal system parts reduce investment costs, simplify logistics, and accelerate daily operations.
Innovative Alignment Clamp	Connect and align panels without additional walers, using integrated slots in the panel frame.
Versatile Usage	The same clamp is used for standard joints, corners, T-junctions, and wall offsets.
Adjustable Locking & Clamp Design	The adjustable lock clamp can be used with a 50mm infill for a rigid, perfectly aligned joint.
Hole Locking Clamp	K-nest clamps have projections that insert into standard holes, ensuring rigidity, alignment, and tightness.
Wedge Clip	Lightweight and easy to handle; works with standard joints, corners, and offsets.

K-NEST VERTIX COMPONENTS



STEEL COLUMN FORMWORK



K-nest Stratix

India's next-gen slab formwork, designed to be smart, simple, and superior

K-NEST STRATIX

Smart. Simple. Superior. Our advanced slab formwork system represents the next generation of construction technology—designed to accelerate project cycles while reducing material usage. Engineered for precision and efficiency, it streamlines workflows, cuts costs, and enhances sustainability.



K-NEST STRATIX FEATURES

Ideal for Efficient Flat Slab Construction

Best suited for flat slabs with large spans.

Minimizes timber usage through reusable MS panels.

Enables faster concreting cycles compared to conventional methods.

Simplified System

Panel, Drop Head, and Prop – no complex inventory required.

No need for additional accessories like cover strips or tripods.

Fits Monolithic & Conventional panel positions – no variation required.

Fast & Intuitive Assembly

Large standard panel sizes: 1200x1200 mm and 600x1200 mm.

Quick installation from a safe working level below.

Allows simultaneous assembly in multiple directions.

Optimised Material Handling

Fewer props are needed due to the large panel size.

No crane required – lightweight panels are manually movable.

Reduced material logistics and site clutter.

Time & Cost Efficiency

Ingenious drophead system enables early striking.

Panels can be reused quickly for the next pour.

Significant savings in both labor time and overall cost.

User-Friendly for Site Personnel

Easy to understand and operate – even for minimal skilled workers.

Safe handling and ergonomic design support site safety and productivity.

K-NEST STRATIX

TECHNICAL BENEFITS

Features	Description
Standard Panel Sizes	1200 mm x 1200 mm and 600 mm x 1200 mm
Lightweight Aluminium Panels	Only 24 kg/m² for easy handling and transport
High Slab Thickness Capacity	Suitable for slab thicknesses up to 500 mm
Durable Formlining	Phenolic-coated formlining with long service life
Efficient Prop Usage	Only one prop per 1.44 m ² of slab area
Easy Infill Closure	Simple closure with filler beam and plywood
System Compatibility	Fully compatible with the entire K-nest prop portfolio



K-nest Table Formwork

India's smart slab formwork for safer, quicker, consistent builds

K-NEST TABLE FORMWORK

K-nest table formwork system is a modern slab construction solution designed for speed, efficiency and precision and built with H Beams or Aluminium Beams. It can be lifted from one floor to another with the help of a crane. It reduces labour requirements, is easy to assemble, safe for workers and reusable across projects. It ensures consistent quality while reducing time and resource requirements on site.



K-NEST TABLE FORMWORK COMPONENTS













India's first integrated pre-engineered construction solutions

K-NEST PRE-ENGINEERED BUILDINGS

Pre-Engineered Buildings (PEBs) use high-tensile steel and factory-fabricated components, ensuring faster on-site assembly, reduced construction time, minimal material waste, and consistent quality. Their precision engineering guarantees durability, seismic resistance, and long-lasting structural strength.

Suitable for industrial, commercial, institutional, and warehouse applications, PEBs provide scalable, sustainable, and cost-efficient solutions with superior design flexibility, architectural adaptability, and ease of future expansion.



K-NEST PRE-ENGINEERED BUILDINGS



Dr.O.W.L

India's pioneering Al-driven mobile system for material testing

DR. O.W.L. (ON THE WHEEL LAB)

India's first lab-on-wheels brings material testing directly to construction sites, saving time and reducing delays. It checks raw materials like cement, concrete, steel, and aggregates on the spot, ensuring quality and safety standards are met. By making testing faster and more convenient, it helps projects move quickly without compromising on reliability.



CLIENT OVERVIEW



TRUSTED BY 850+ CLIENTS WORLDWIDE

TRUSTED BY THE LEADERS. RECOGNISED BY THE PIONEERS.



















TRUSTED BY THE LEADERS. RECOGNISED BY THE PIONEERS.





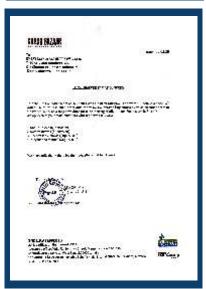














KNEST MANUFACTURERS PRIVATE LIMITED

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Corporate Office: Unit Number 801/802, Om Chambers, T.29/31, Bhosari Industrial Estate, Telco Road, Next To Toyota Showroom Bhosari Pune - 411 026, India

Factory Address: Gat No.45, Navlakh Umbre, Talegaon, Pune - 410 507, India

Contact Us - +91 86004 00895



Website