

# TECHNOLOGY | DESIGN | INNOVATION



# Chairman's Message



Construction is an indispensable pillar of our world, it shoulders humanity. Ever since its inception, Knest has been committed to strengthening this pillar with the finest aluminium formwork solutions. We do this with our industry-leading offerings, and service that is driven by care.

As a proud Indian multinational organisation, Knest is touching lives and bringing dream projects to life all over the world. And in no time we have become India's largest & world's fastest growing aluminium formwork company.

Anchored by the best of construction-tech, we are shaping a landscape that is efficient, sustainable, and pioneering the future.

There are miles to go in this journey, and it is our honour to build that with you.

NITIN MITTAL

Chairman & Managing Director

# **About**

#### Us

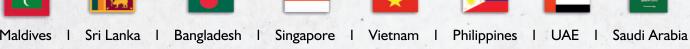
Knest is a construction-tech solutions company with aluminium formwork offerings for real estate and infrastructure development projects worldwide. It was founded in 2014 with the fundamental idea of building an efficient construction ecosystem and has scaled to command the largest market share in the aluminium formwork industry.

The 21<sup>st</sup> century world is a globalised village of shared economies with a huge potential for growth & development for all. Knest is a proud Indian multinational that delivers world-class solutions for developers worldwide to create an interconnected & consistently productive international construction ecosystem.



# **Knest Beyond Borders**





#### **Vision**

#### **Statement**

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

#### Mission

#### **Statement**

- 1. To build the world's largest construction-tech solutions company.
- 2. To develop a global footprint as an Indian multinational enterprise.
- 3. To lead the construction-technology ecosystem by building capacity in design, manufacturing & site support.
- 4. To shape an open, collaborative & empowering work environment for all employees.
- 5. To deliver consistent value to stakeholders in infrastructure development through innovation & imagination.
- 6. To enhance efficiency & customer delight with quality calibrated products & services.
- 7. To help save more than I crore trees.

# As DEPENDABLE as it gets.



# Sustainable construction is a choice

#### **The Green Vision**

To make real estate & infrastructure development Cleaner, Leaner & Greener.

#### **The Green Pledge**

To save I crore trees through aluminium formwork by replacing plywood.

#### The Green Way

Championing the Reduce, Reuse & Recycle Framework - All aluminium formwork offerings from Knest have been calibrated to perfection for you & for the planet.



# Why Knest?

#### 1. State-of-the-Art Production Facility

- Factory Expanse of 8,00,000 + sq. ft.
- Production Capacity of 1,50,000 + sq. mt. / month
- World-class Manufacturing Facilities
- Industry-leading Machines

#### 2. End-to-end Service

- Technical & Design Assistance
- On-site Training
- Proactive Customer Support
- Dedicated & Experienced Execution Team

#### 3. Optimum Delivery Time

- Best-in-class Manufacturing TAT
- Excellent Delivery Record
- On Time, Every Time

#### 4. Built To Suit

- World's Largest Design Team
- Collaborative Creation
- Freedom of Personalisation

#### 5. Fine Engineering

- Proprietary & Patented Software
- Perfectly Balanced[Light + Strong] Products
- Led by Technical & Industry Experts

#### Our

# **Innovations**

# **I.3D Virtual Reality Visualisation**

Observe everything on a 1:1 scale to ensure the best safety & reliability standards.

# 2. Signature Walls

Combine the best of aluminium formwork with formliners to experience new design possibilities for concrete walls.

#### 3. Panel Sensor

Inspect the horizontal alignment of wall panels digitally & remotely to mitigate human error, save time and ensure robust construction.

More cutting-edge innovations in our R&D pipeline; to be rolled out soon!







# **Knest Manufacturing Process**



I. Quality Check



3. Punching

2. Cutting

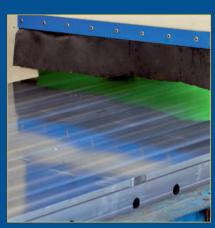


4. Milling





5. Robotic Welding



7. Lacquering



9. Ready for dispatch

6. Buffing



8.
Barcode Scanning



## The Knest

# **Divisions**

#### **Knest Verticals**

Our special range of affordable, flexible, and modular aluminium formwork components for individual developers & contractors.

The size of your project is not a concern, the size of your dream is.

#### **Knest Monolithic**

Our flagship offering of high-performing & extremely durable aluminium formwork solutions.



#### Knest

# **Verticals**

Born out of our long-standing approach of customer-driven practices, Knest Verticals have been developed to specially cater to critical areas of your project.

Modules of construction that bring the best of aluminium formwork/aluform systems vis-a-vis ROI, utility and performance.

# **Solution**

# **Offerings**



Roof & Floor Slabs - The Deck System

#### **Multipurpose Formwork Solutions**



Shear Walls



Lift Core



Flexi Columns - Circular, Rectangular & Square

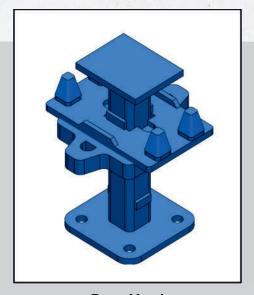


Retaining Walls/Single & Both Sided Walls

## The Deck

# **System**

Knest Deck System is a special lightweight aluminium formwork system developed to construct large slab areas with minimal labour & flexibility for seamless integration with all other Formwork Systems. With additional one-of-a-kind components such as the Drop Head, the Knest Deck System ensures seamless & hassle-free construction.



**Drop Head** 



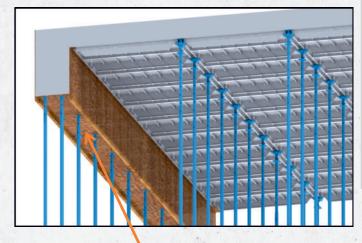
**Drop Head** 

#### **Knest Deck + Knest Monolithic Panel**



100% covered by Aluminium panel

#### **Knest Deck + Conventional Formwork**



Casting slab with beams using traditional timber formwork

#### The Deck

# **System**

#### **Features**

- Usage: for roof & floor slabs
- Material: best-in-class AL6061-T6
- Welding: friction stir welded
- Durability: rust-proof & weather resistant
- Repetitions: up to 400 times with proper care
- Specialities: drop head, flexible utility & FSW
- Slab thickness: 300mm 750mm as per requirements
- Panel size: 900mm x 1800mm, 900mm x 1500mm, 900mm x 1200mm
- Accuracy: dimensions are controlled due to extruded sections

#### **Benefits**

- Crane-independent & easy to handle
- Form finish without honeycombing
- Savings on labour costs & expenses
- Salvage value to end users
- Less wooden wastages
- Faster construction with reduced slab cycles
- Quick replacement of lost or damaged panels
- Low initial investment leading to high ROI in a short period of time

# The Deck System

# **Specialities**

#### **Drop Head (With Support Head)**

- Ensures support to the slab for extended periods after formwork removal
- Allows the formwork panels to be removed in 36 hours
- Can be set up and dismantled with a minimum of a three-man crew
- Safe to operate with a semi-skilled crew with basic training

#### Flexible Utility

- Can be used with other Knest Formwork Systems as part of a complete monolithic system
- Can also be integrated with traditional methods for structural components or specific in-fill areas
- The Knest in-fill extrusion ensures easy management of special in-fill zones by enabling simple integration of timber/plywood for in-fill areas around columns, beams, walls, etc

#### **Friction Stir Welded**

- Only company in the segment to provide Friction Stir Welding
- FSW of two 450mm L Panels
- Higher retention of tensile strength & enhanced durability

# Multipurpose

## **Formwork Solutions**

Multipurpose Formwork Solutions brings the best construction tech for a variety of tailored requirements. As part of monolithic systems or for the individual casting of specific parts, the solutions include walls, lift cores & columns. The solutions can be used in Tie Rod & Wall Tie options, depending on the specifications.

#### **Features**

- I 00% Aluminium panels with single extrusion of up to 600mm
- Safety in execution
- Gang form possible for faster execution
- Anchoring possible for more stability
- Supporting structures with attachments without damaging the asset
- Friction stir welded panel of AL6061-T6
- Perfect geometry of the panel
- Standardization in sizes of the panels
- Robotic welding with high precision in manufacturing
- Permissible load carrying capacity of 60 kn/sq m
- Rust proof and weather proof
- Repairable at site or factory
- Higher no. of repetitions (more than 300, with proper care)
- Some panels can be re-used for casting of other vertical elements

#### **Benefits**

- Form finish without honeycombing
- Faster construction
- Value addition to existing process
- Savings on labour costs and expenses
- Salvage value to end users
- No wooden wastages
- Low initial investments leading to high ROI in shorter period of time
- Low investments
- Faster completion of basements & podiums
- Quick replacement of lost or damaged panels
- Versatile product with usage across multiple projects and application

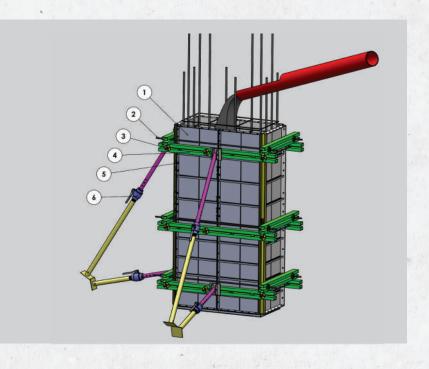
## **Shear Wall &**

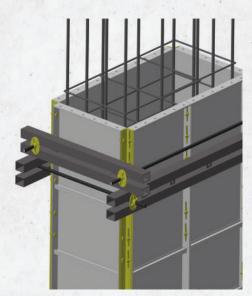
# **Lift Core Formwork**

Shear Walls are the key structural support elements of all RCC Structures, they are fundamental to the architecture of the building. Lift Cores are becoming an essential part of the formwork systems, due to the rapid demand & growth of high-rise buildings.

Knest Verticals empowers compatibility of these solutions with both Tie Rod & Wall Tie Systems.

#### I) With Tie Rod System



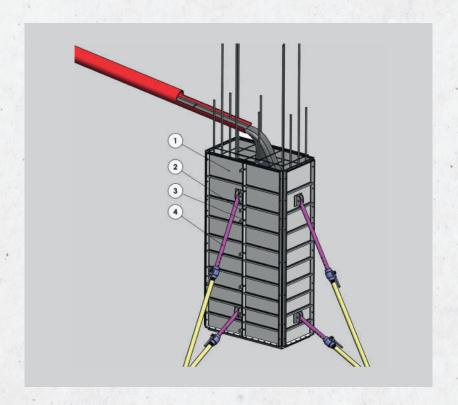


- 1 Wall Panel
- 3 Wing Nut
- 5 Wedge Pin

- 2 Tie Rod
- 4 Waller
- 6 Push Pull Prop

# Shear Wall & Lift Core Formwork

#### II) With Wall Tie System



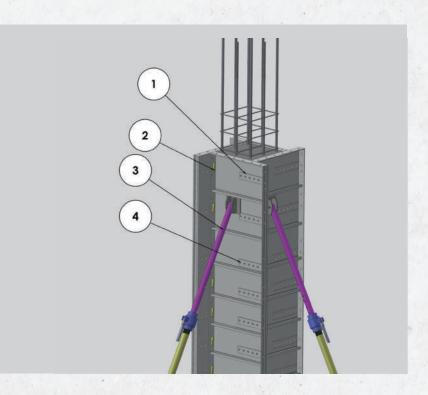
- 1 Wall Panel
- 3 Wedge Pin

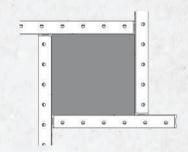
- 2 Wall Tie
- 4 Push Pull Prop

## Flexi Column

# **Formwork**

Flexi Column Formwork offers solutions for casting columns of different sizes & specifications. They are ideal for the construction of vertical elements with the same formwork panels. They can be availed in both the Tie Rod & Wall Tie Systems, depending on the project specifications. They require minimum accessories & can be used for column sizes ranging from 200mm to 600mm.





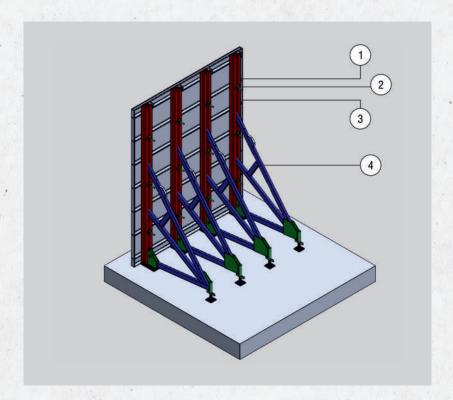


- 1 Wall Panel
- 3 Push Pull Prop

- 2 Wedge Pin
- 4 Plug

# Retaining Wall / Single Sided Wall Formwork

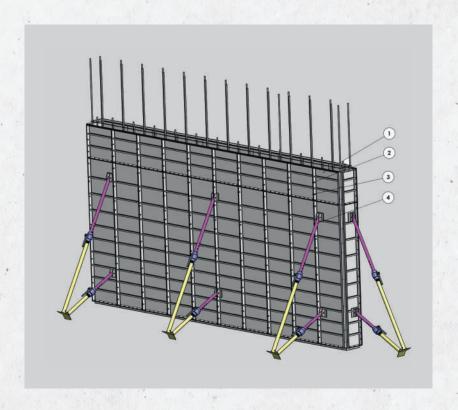
Retaining Wall Formwork also known as Single Sided Wall Formwork offer solutions for the casting of basement walls. They can be availed in the Tie Rod System (With Bracing). They are ideal for retaining structures and provide a great foundation.



- 1 Wall Panel
- 3 Waller

- 2 Tie Rod
- Diagonal Brace/ Steel Frame

# Retaining Wall / Both Sided Wall Formwork



- 1 Wall Panel
- 3 Wedge Pin

- 2 Wall Tie
- 4 Push Pull Prop

# **Technical**

# **Specifications**





Load capacity- 60 kn/sq m Standard height - 2.4m Maximum width upto 600mm

2 Tie Rod



Used to connect the wall panels on both sides of the wall

3 Wing Nut



Used to fix tie rods with wallers

4 Waller



A horizontal member used to brace or support an upright wall panel

5 Wedge Pin



Used to connect two adjacent panels

6 Push Pull Prop



Used for alignment

**7** Wall Tie



Used to connect the wall panels on both sides of the wall

8 Plug



Used to plug the holes of flexi panels when not in use

# **Our Esteemed Partners**















































# **Our Esteemed Partners**

















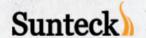












& many more...



## **Our Partners**









## **Knest Verticals Pvt. Ltd.**

(A division of Knest Manufacturers Pvt. Ltd.)

**Head Office Address -** Unit Number 801 / 802, Om Chambers, T. 29/31, Bhosari Industrial Estate, Telco Road, Next to Toyota Showroom, Bhosari, Pune - 411 026

Factory Address - Gat No. 47, Navlakh Umbre, Talegaon, Pune - 410 507

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Website



Head Office Location



**Factory Location** 



Monolithic Brochure