



magicrete
magic behind happy homes

MODULAR BUILDINGS

Smart Buildings for Smarter Tomorrow

MODULAR Building

From the innovators in construction technology, here's Modular Buildings, engineered to redefine speed and consistency in every build. Magicrete's Modular Construction systems bring factory-grade precision to the site, cutting construction timelines while delivering walls, floor and structural elements that are consistent, durable, and ready to install.



20+

No. of projects

39 LAKHS
SQ.FT. +

Total construction done

1.3 LAKHS
CBM+

Total volume casted

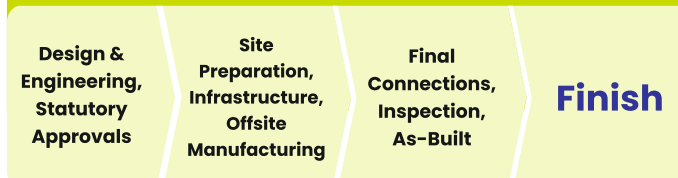
HOW FAST CAN WE BUILD?



Traditional Construction Timeline

VS

Modular Construction Timeline

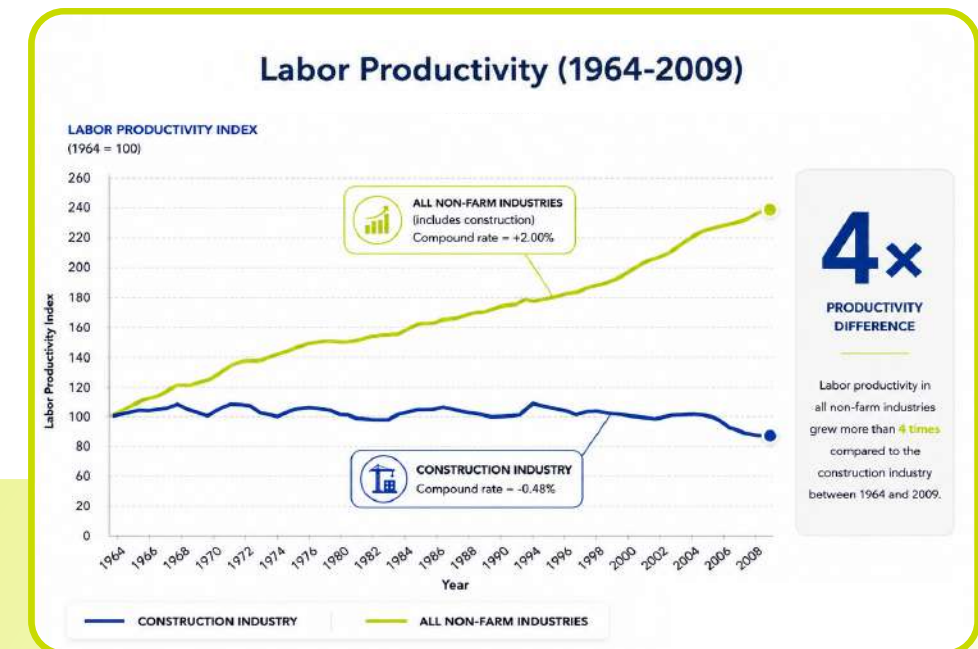


UP TO
50%
FASTER

With conventional construction methods, one of our projects in Ranchi would have taken 3 years to build. With modular construction, we delivered it in just 12 months.

WHY Modular Construction?

LABOR PRODUCTIVITY GAP



THE PROBLEM



Construction industry lags in Labour Productivity

THE SOLUTION

Shifting construction from **onsite** to **offsite**



Factory based approach, just like automobiles



Prefab/Volumetric Construction is the solution to fill this Gap.

BENEFITS OF

Modular Construction



Time Efficiency

Off-site manufacturing accelerates total project completion by up to 50%.



Strict Quality Control

Complies with Indian Standards Institute guidelines, guaranteeing safety and durability.



Easy and Smart Installation

Hassle-free assembly processes save time and labor costs.



Low Maintenance Cost

Durable construction reduces the need for frequent maintenance, leading to long-term cost savings.



Design Flexibility

Tailored to project requirements in varied shapes, sizes, and finishes, allowing for design flexibility.



Environmentally Friendly Practices

Sustainable manufacturing processes minimize waste and reduce the carbon footprint.

MODULAR

Building System Elements



MANUFACTURING

Facility



TECHNOLOGY

Comparison

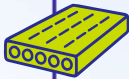
Parameter	Modular Precast	Steel Building	Conventional Construction
Resource Efficiency	Excellent (up to 60% less manpower)	Good (moderate manpower reduction)	Poor
Time Reduction (vs. conventional)	50% lesser	30–40% lesser*	Baseline
Total Cost of Ownership (Index)	0.85 – 1x	1.2x	1x (baseline)
Safety	Low risk (only ~10% of work done on site)	Moderate risk (site erection/ welding involved)	High risk of injury to manpower
Sustainability	High (uses less & recyclable materials)	Moderate (steel recyclable, but energy-intensive to produce)	Low
Seismic Stability	High (suitable up to Zone 4)	High (steel ductility aids performance)	Medium
% Industrialization	90%	60–90%	0%
Finishing at Plant	100%	60–80%	0%
Scalability	Very high	Low	Medium
Speed of Execution	Very high	High	Medium

(A) PRECAST FLOORING SYSTEM

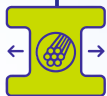
Magicrete introduces Precast Flooring System (Prestressed & Hollow Core Slab) a high-performance prestressed concrete solution redefining modern floor and roof construction.

Hollow Core Slab

A lightweight yet structurally superior floor and roof deck solution. Designed to deliver maximum load-bearing capacity at larger spans (up to 14m) while significantly reducing dead load on the overall structure.



Continuous voids **reduces usage of concrete** from low-stress zones, giving a lighter slab.



Prestressed with **high-tensile steel wires**, the slab is engineered to carry heavy loads at longer span (up to 14m).

ADVANTAGES



Significant Weight Reduction

Considerably lighter than conventional RC slabs, Hollow Core Slabs reduce the structural dead load on beams, columns, and foundations directly translating into major material and cost savings across your entire project.



Longer Spans & Higher Load Capacity

Spanning up to 14 meters, Hollow Core Slabs streamline structural design by achieving greater coverage with fewer supporting elements.



Superior Fire Resistance



Superior Seismic Resistance



Integrated MEP Conduit



High Thermal Insulation & Acoustic Performance



Controlled Environment Manufacturing



Reduced Site Labour

Prestressed Concrete Slab

Reinforced with High-Tensile Low Relaxation Prestressing Strands (LRPC), this element is engineered mid length (up to 8m) spans and higher structural demands outperforming conventional RCC slabs in both strength and efficiency.



Dimension

Prestressed Solid Slabs: Width: 1200mm | Thickness: 75mm – 120mm

Hollow Core Slabs: Width: 1200mm | Thickness: 120mm – 400mm

(B) COLUMN | BEAM | STAIRCASE

These structural and access elements are cast and cured under controlled factory conditions, then transported to site for direct installation. Manufacturing them off-site allows for tighter dimensional accuracy and consistent quality across every unit, while significantly reducing on-site formwork, shuttering, and curing time. The result is faster erection, cleaner sites, and elements that are engineered for consistent performance across every pour.



ADVANTAGES



Factory-Controlled Quality

Cast under controlled conditions, giving each beam, column, and staircase unit consistent dimensional accuracy and finish.



Faster On-Site Assembly

Eliminates on-site formwork and curing time, enabling quicker erection and shorter project timelines.

(C) WALLING SYSTEM

Load-bearing Wall Panels

i) **Solid Precast Panels** Engineered for structural applications, these panels are cast under factory-controlled conditions for consistent strength, density, and dimensional accuracy. Their solid construction makes them suited for external walls and structural applications where high strength and durability are required.

ii) **Façade Panels** Designed for building envelopes, façade panels combine structural performance with architectural finish, allowing for faster envelope closure and reduced dependency on conventional cladding methods.

Non-load-bearing Wall Panels

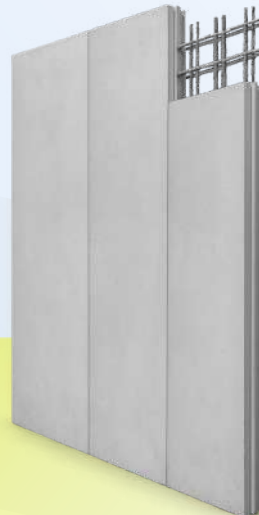
iii) **AAC Wall Panels** Lightweight autoclaved aerated concrete panels engineered for infill walls in framed structures and internal partitions. Their cellular structure gives them strong thermal insulation and acoustic performance, while significantly reducing overall building weight compared to conventional block or brick walling. Large panel sizes mean fewer joints, faster installation, and a smoother, more consistent finish.



SOLID PRECAST
PANELS



FACADE
PANELS



AAC WALL
PANEL

(D) 3D PODS

- **Fully Finished, Room-Sized Modules** Entire rooms are cast and finished as complete volumetric units in the factory, ensuring consistent quality regardless of site conditions.
- **MEP, Fittings & Finishes Pre-Installed** Wiring, plumbing, fixtures, and finishes are fitted at the factory, removing multiple rounds of site-based trade work.
- **Lifted & Installed Directly On-Site** Modules are transported and craned into place, with no in-situ construction; cutting on-site labor and material movement.
- **Up to 90% of Work Completed in Factory** Only final connections and joint treatments remain on-site, shifting most of the timeline into a controlled factory environment.





IDEATION TO Completion

Ensures a seamless & hassle-free construction experience

1



Evaluate

Evaluate the preliminary design for the most efficient solution to suit the client's needs.

2



Engineering and Design

Using value engineering to create effective structural designs.

3



Manufacture

Maintaining rigorous quality standards according to the set schedules.

4



Erection

Carry out the complete erection of the building.

5



PMC

A dedicated professional team for monitoring and controlling the project from start to finish.

6



Services & Finishes

Undertake building services and finishing work. Deliver the complete building ready for use.

DESIGN Codes

Bureau of Indian Standard codes

- ✓ Reinforced Concrete Members as per IS 456:2000
- ✓ Prestressed Concrete Floors as per IS 1343:2012
- ✓ Structural Steel members as per IS 800:2007
- ✓ Precast Large Panels as per IS 11447:1985
- ✓ Precast Elements design as per IS 15916:2020
- ✓ Design Loads as per IS 875 (Part 1 & 2):1987
- ✓ Design Wind loads as per IS 875 (Part 2):2015
- ✓ Criteria for Earthquake Resistant design as per IS 1893:2016
- ✓ Design Charts for Single RCC Beams, Doubly CC Beam and Columns as per SP: 16
- ✓ Design and Construction of Foundation in Soils as per IS 1904-1986

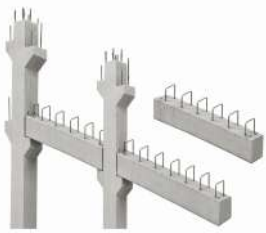
International codes

- ✓ Building Code Requirement for Structural Concrete as per ACI: 318
- ✓ Code of practice for design and construction as per BS: 8110 - 1985
- ✓ Precast and Prestressed Concrete Design as per PCI Handbook
- ✓ 7th Edition
- ✓ Ref. Book "Precast Concrete Structure" by KIM S.ELLIOTT

*Note: Wherever IS codes are silent, International codes are referred

PRECAST

Connection Details



Column to Beam



Column to Beam



Grade slab to precast stair



Stair flight to Landing slab

Type - 1



Beam to Hollow Core Slab

Type - 2



Beam to Hollow Core Slab with screed

Type - 3



Beam to Hollow Core Slab



Pocket footing to Column



HCS to HCS slab for Diaphragm

Type - 1



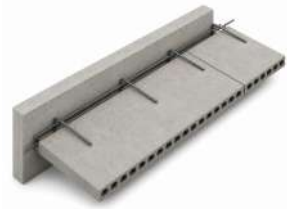
Wall panel to Hollow Core Slab

Type - 2



Wall panel to Hollow Core Slab

Type - 3



Wall panel to Hollow Core Slab

PRECAST

Infrastructure Solutions

Drain



Trench



Bus Stops



Box Culvert



Boundary Walls

L-SHAPE



T-SHAPE



RESIDENTIAL & COMMERCIAL



Magicrete wins the **Global Housing Technology Challenge** organized by the **Ministry of Housing & Urban Affairs**. Magicrete stands true to its vision of helping people build their homes Better, Faster & Affordable.



RANCHI PROJECT
LAYOUT

Ranchi Project Details

Client - Ministry of Housing and Urban Affairs	1,008 Homes 8 Towers 7 Storeys
Technology - Modular Construction	Developed in 12 months





Suraksha Smart City

A transformative **300+ acre** mega-township shaping the future of residential living in Vasai.

Magicrete is proud to be an integral part of this landmark development, contributing to its construction through Modular Precast.

Suraksha Smart City



INDUSTRIAL



Deepak Chem Tech Ltd.



Aarti Industries Ltd.



Borosil

VILLAS & RETAIL OUTLETS



Dahanu Sea Face Villa



KKB Villa



Luxurious Villa Olpad



Schmitt



Shell Select

INFRASTRUCTURE



Atul Ltd.



Kalpatru Power Transmission Ltd.



L&T Cable Trenches



United Phosphorus Ltd.



Panoli Intermediate India Pvt. Ltd.



Maruti Infracreation Pvt. Ltd.



UPL Warehouse

ESTEEMED Clientele

 Ministry of Housing and Urban Affairs Government of India	 प्रधान मंत्री आवास योजना-ग्रामी Pradhan Mantri Awas Yojana-Gramin	
 DEEPAK CHEM TECH	 AARTI INDUSTRIES	 SURAKSHA SMART CITY
 SRF We always find a better way	 PIL	 LARSEN & TOUBRO
 TATA CONSULTANCY SERVICES	 SURAT MUNICIPAL CORPORATION	 Panoli Intermediates India Pvt. Ltd.
 MARUTI INFRACREATION PVT. LTD. CONCEPT TO CREATION	 DH&A	 KKB
 RKC INFRABUILT PVT. LTD.	 KALPA-TARU	 Atul touching lives...
 BAYER	 BOROSIL renewables	 DRA
 KUTCH CHEMICALS PVT. LTD.	 UPL	 AM/NS INDIA

AWARDS

& Recognitions



Best Realty Brand by ET Edge.



India's Top 50 Great People Managers (CEOs, MDs & Founders) by Great Manager Institute



Recognizing Future Masters of the Indian Startup Sector' by BW 40Under40 Disrupt Award



Building Gujarat Award by MY FM 94.3.



Emerging Real Estate Leaders 40 Under 40, by Realty+



Most Promising Brand (Building Material) by The Global Real Estate Congress.



'Most Preferred Brand' by Real Estate Sector (Bricks/Blocks) by ET Now.



India's Top Innovative MSMEs' by ET Rise.



Startup of the Year Shortlisted by Forbes.



Awaaz Entrepreneur' by CNBC-TV 18.

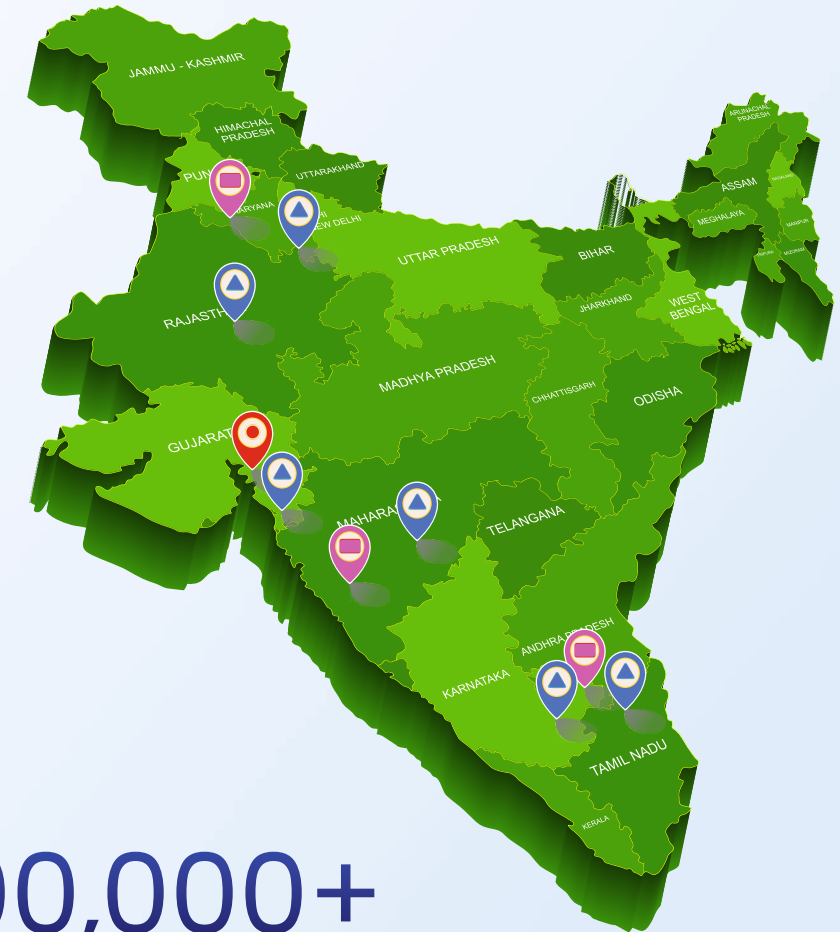


Entrepreneur of the Year' by Tiecon.



Top 50 companies by 'ET Leaders of Tomorrow'

OUR PRESENCE



1,00,000+
Contractors on board

- **Corporate Office** (Surat)
- **Regional Offices** (Delhi, Mumbai & Bangalore)
- ▲ **Plant** (Navsari, Jhajjar, Wada, Rajasthan, Tamil Nadu)



Magicrete Building Solutions Pvt. Ltd.

(ISO 9001 :2015, ISO 14001 :2015 & ISO 45001 :2018 Certified co.)

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