

**HEMISPHERE ONE**

CONSTRUCTION. INTEGRATED.

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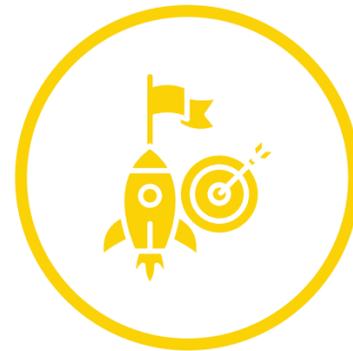
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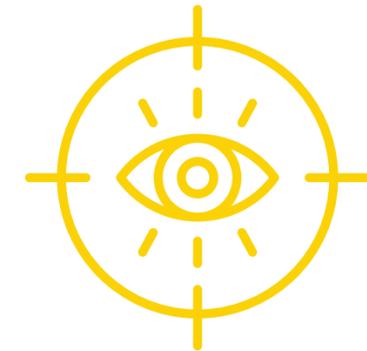
# What we are!

*One platform unifying machinery, materials, formwork, and technology for faster, smarter, and sustainable construction.*



## MISSION

To build a global platform that integrates machinery, materials, formwork, and construction technologies into efficient, adaptable, and sustainable building systems, enabling faster adoption and higher on-site impact.



## VISION

To become a global enabler of modern construction, fostering innovation through partnerships, aggregation, and system-level thinking, while delivering measurable value in:

- Time Efficiency
- Execution Effort Reduction
- Cost Optimization
- Environmental Sustainability

# PRODUCTS

## MACHINERY

H1-561-PRO | H1-561-MINI | H1-561-ECO

## FORMWORK

JET FORMWORK PLASTIC

## CONCRETE DRY MIX

ENERMIX-25 | ENERMIX-40 | TERRAMIX

## CONCRETE CHEMICALS

ACTIPOUR | ACTIMIX-PR

## FIBER REINFORCEMENT

RTARIUM

# SOLUTIONS

## FLOORING

INDUSTRIAL FLOORING | TOP SCREED

## WALLING

PARTITION WALL | WAREHOUSE WALL |  
THERMAL WALL | BOUNDARY WALL | RETAINER WALL

## PRECAST

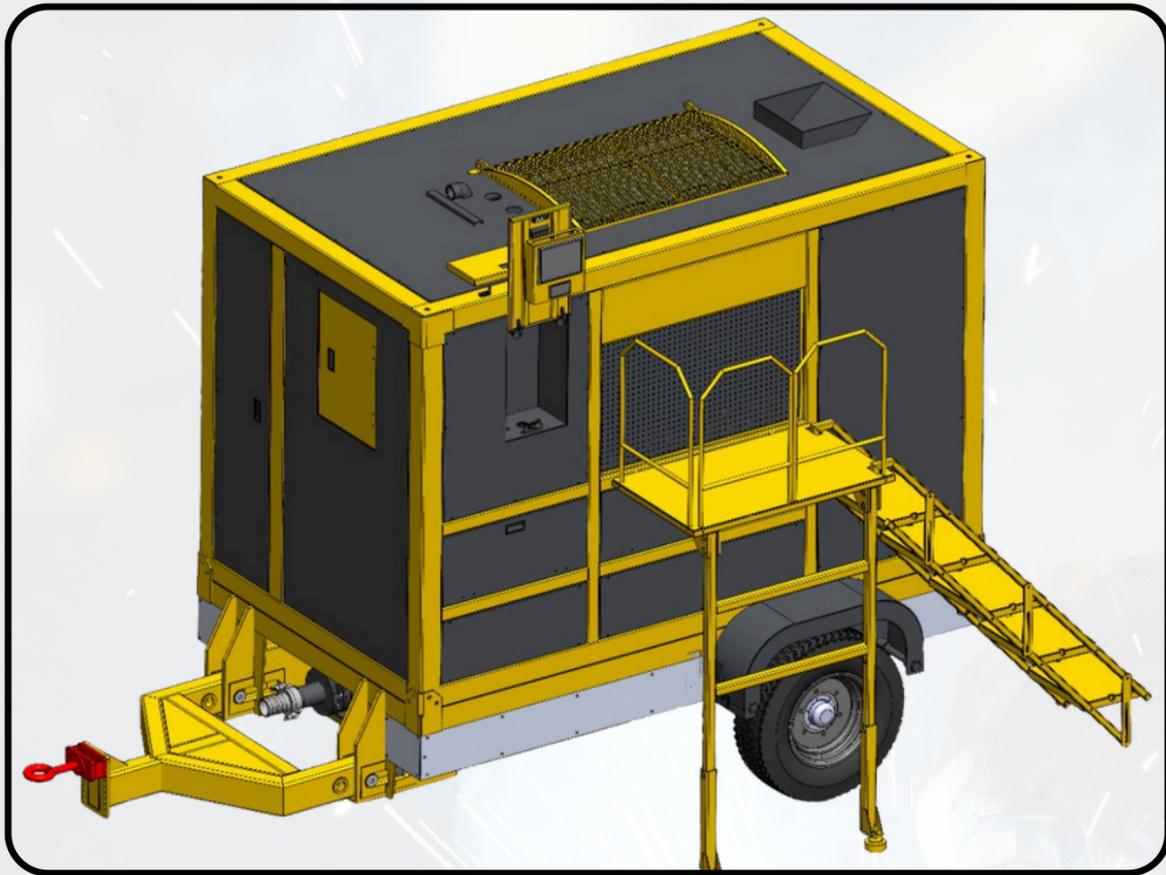
BOUNDARY WALL SYSTEM | FOUNDATION ELEMENTS

## HOUSING

SHEAR WALL | STEEL-CONCRETE COMPOSITE |  
HYBRID PRECAST | AFFORDABLE MASS HOUSING

# PRODUCTS

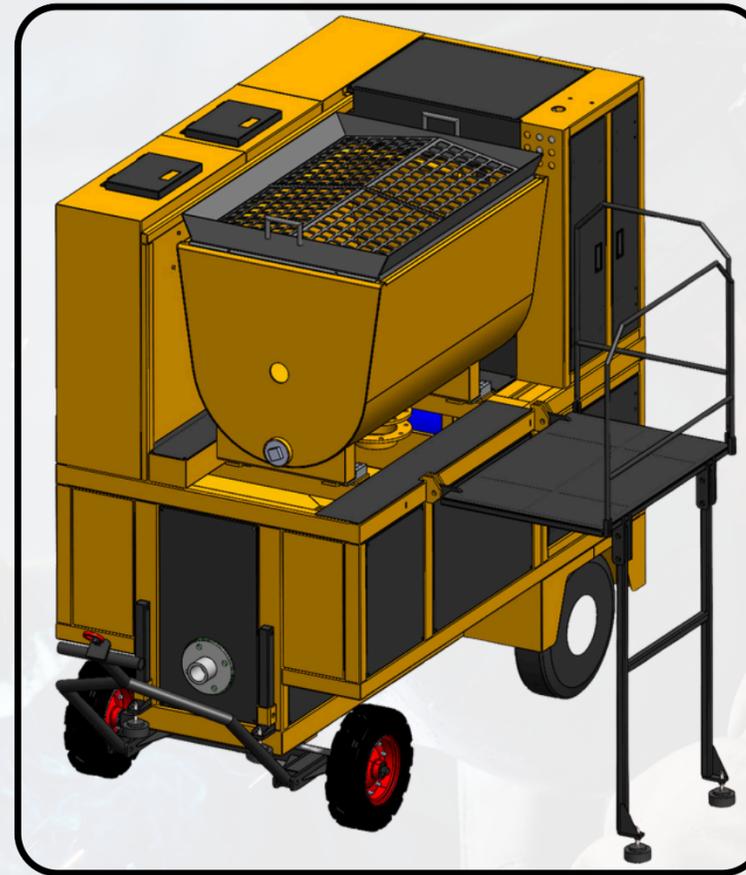
# MACHINERY



**H1-561**  
*PRO*

## FULLY AUTOMATIC MOBILE CONCRETE BATCH MIXER & PUMP

- 1 Cubic Meter Mixer Capacity
- 100m Horizontal | 50m Vertical Pumping
- 6-10 Cubic meter per hour Production
- In-built Foam Generator
- PLC controlled IoT enabled machine
- VSB1 Complaint Trailer



**H1-561**  
*MINI*

## SEMI-AUTOMATIC PORTABLE CONCRETE MIXER & PUMP

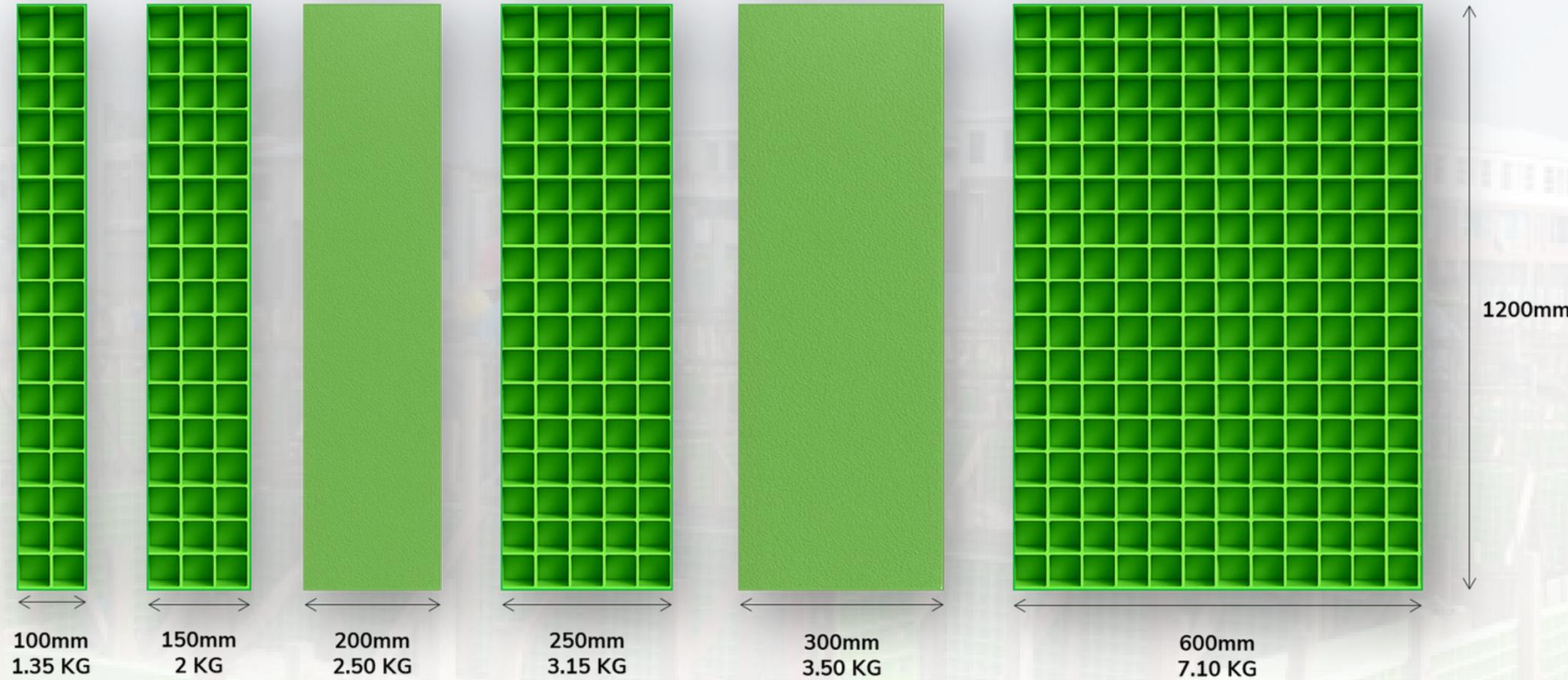
- Semi-automatic Bag mixer
- Chemical Dosing Station
- 4 Cubic meter per hour
- In-built Foam Generator
- 30m Vertical Pumping lift
- Retractable Working Platform



**H1-561**  
*ECO*

## PORTABLE BAG MIXER & PUMP

- Portable Bag Mixer
- Optional Loader
- Towable
- 30m Vertical Pumping lift
- Compact size
- Optional Material Loader



- LIGHTWEIGHT
- HIGH REPEATITIONS
- REUSABLE
- FASTER ASSEMBLY
- EASY TO HANDLE
- EASY MAINTENANCE
- SUPERIOR FINISH
- HIGH IMPACT RESISTANCE
- ANTI-SLIP SURFACE
- ALL WEATHER CONDITION

## FOUNDATION



## COLUMN



## BEAMS



## SLAB



## WALLS



# CONCRETE DRY MIX



## APPLICATIONS

- *Partition Walls*
- *Floor Screed*
- *Boundary Wall*

### ENERMIX-25

#### READY-TO-USE DRY MIX CONCRETE

- C20-25 [25Mpa Strength]
- FREE-FLOW CONCRETE
- 550-900mm SLUMP
- SELF-COMPACTING CONCRETE
- 5mm DOWN AGGREGATE



## APPLICATIONS

- Precast Elements
- Retainer Walls
- Industrial Flooring

### ENERMIX-40

#### READY-TO-USE DRY MIX CONCRETE

- C35-40 [40Mpa Strength]
- FREE-FLOW CONCRETE
- 550-750mm SLUMP
- SELF-COMPACTING CONCRETE
- 10mm DOWN AGGREGATE



## APPLICATIONS

- RTARIUM Thin Panels
- Decorative Precast Boundary Walls.

### TERRAMIX

#### HIGH PERFORMANCE CONCRETE

- C60 [60Mpa Strength]
- FREE-FLOW CONCRETE
- ZERO PIN HOLES
- FULL STRENGTH IN 3 DAYS
- LOW CARBON MIX DESIGN
- GRAY AND WHITE COLOR

# CONCRETE CHEMICALS



## SINGLE COMPOUND

### ADMIXTURE TO

#### REPLACE:

- *Water Reducing Agent.*
- *Viscosity Modifying Agent.*
- *Accelerating Agent.*
- *Permeability Reducing Agent.*
- *Cracks Resisting Agent.*



## TECHNICAL SPECIFICATIONS:

- Appearance:** Black Color.
- Density:** 1.02 g/cm<sup>3</sup>
- pH Value:** 7.0-9.0
- Solid Content:** >98%
- Foam Expansion:** 15-25 Times
- Shelf Life:** 24 Months.

## ACTIPOUR Series

### Nano Engineered Concrete Admixture

- Multi-functional Admixture Compound.
- Available for Low, Moderate and High Grades of Concrete.
- No Cracks and Impermeable Concrete.
- Early Strength & Superior Finish.

## ACTIMIX-PR

### Synthetically Modified Protein Aerating Agent

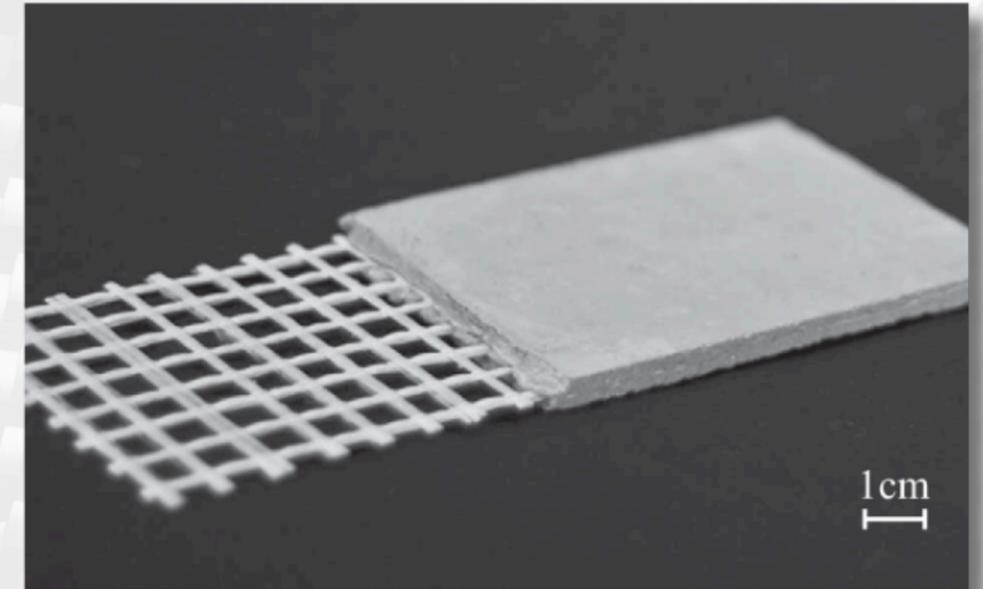
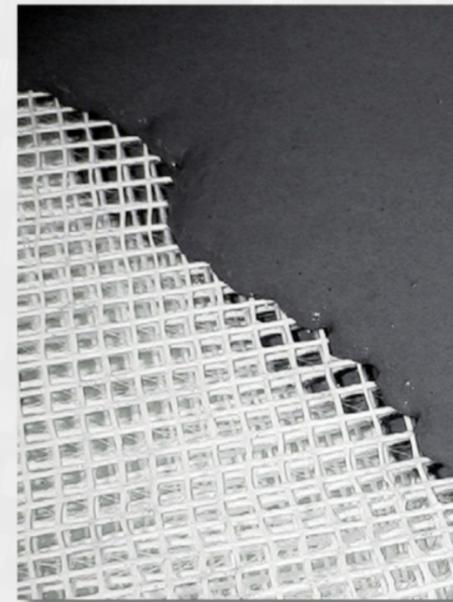
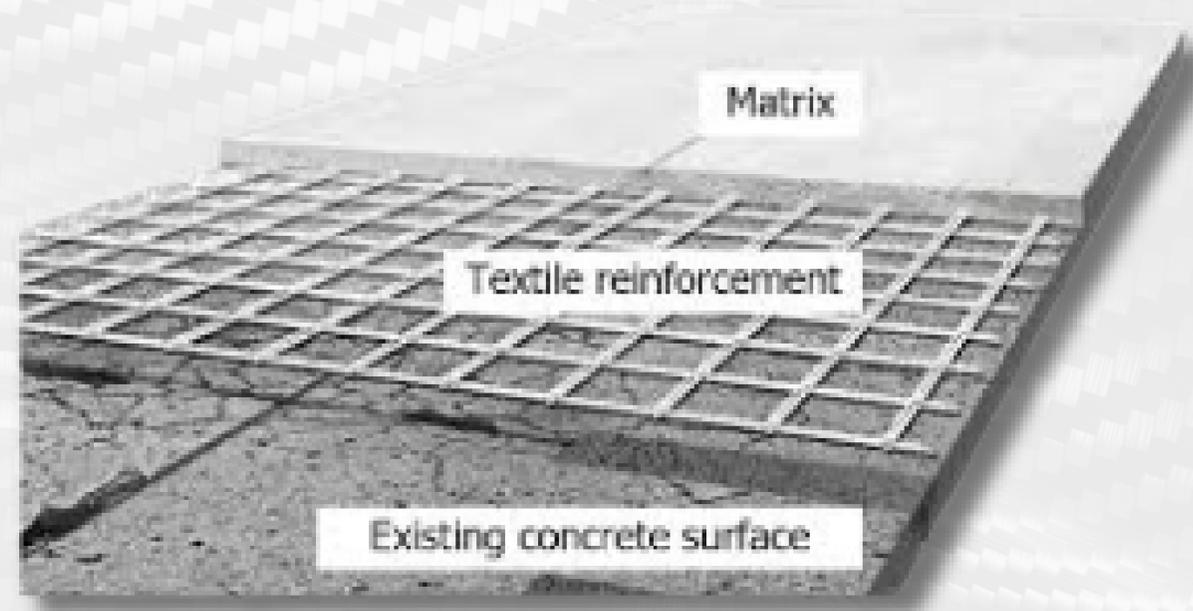
- Synthetic Formulated Protein Agent.
- Odor-free Work Environment
- Extended Shelf Life
- Superior Foam Stability



# FIBER REINFORCEMENT



## ADVANCED FIBER REINFORCEMENT TECHNOLOGY



**RTARIUM** is a next-generation reinforcement system based on high-tensile textile fibers, designed to replace conventional high-strength concrete, steel rebars, and steel fibers across multiple construction formats.

Unlike steel, textile reinforcements ***do not corrode, enabling thinner sections, lower concrete volumes, and longer service life while delivering superior tensile performance.***

### APPLICATIONS

- Distributed tensile grids instead of rebars
- Crack-bridging networks instead of steel fibers
- Structural skins instead of mass concrete strength

- **Concrete Repairs** - *Structural Strengthening with Demolition.*
- **Floor Screed** - *Warehouse Floors & Top Screed*
- **Thin Panels** - *Sheathing, Cladding and Lightweight Precast.*

# SOLUTIONS

# FLOORING

## INDUSTRIAL FLOORING



INDUSTRIAL FLOORING: CONVENTIONAL Vs RTARIUM		
Compressive Strength	40-45 Mpa	30-35 Mpa
Tensile	3.5-5.0 Mpa	7.0-9.0 Mpa
Typical Thickness	150-200mm	80-120mm
Material Consumption	5.0-6.7 SQM/m <sup>3</sup>	8.5-12.5 SQM/m <sup>3</sup>
Reinforcement	35-60 Kg/m <sup>3</sup>	2-4 Kg/m <sup>3</sup>
Impact Strength	5-8 kJ	12-18 kJ

## DISRUPTION

**COMPRESSION  
REQUIREMENT**

↓  
REDUCED by  
**30%**

**SLAB  
THICKNESS**

↓  
REDUCED by  
**50%**

**CONCRETE  
CONSUMPTION**

↓  
REDUCED by  
**70%**

**TENSILE &  
IMPACT STRENGTH**

↑  
INCREASED by  
**80%**

# FLOORING

## TOP SCREED



TOP SCREED:	CONVENTIONAL Vs RTARIUM	
Compressive Strength	25-30 Mpa	25 Mpa
Tensile / Flexural	1.0-1.5 Mpa	3.5 Mpa
Typical Thickness	30-50mm	20mm
Flatness	SR2	SR1
Shrinkage	≤ 0.04%	≤ 0.01%
Bond Strength	1.0 Mpa	2.0 Mpa

### BENEFITS

SELF LEVELING



PUMPABLE



FAST SETTING



GOOD BONDING



LIGHTWEIGHT



# WALLING

## PARTITION WALL

## DISRUPTION

## WAREHOUSE PARTITIONS



**3-9 METERS IN SINGLE POUR** - *Eliminates lift joints, improves structural continuity and accelerates execution.*

**CODE COMPLIANT** - *Engineered mullions and bond beams integrated within the wall thickness for regulatory compliance.*

**PRE EMBEDDED MEP** - *No chasing or plastering required. Electrical and Plumbing service line cast directly into the walls.*

**REDUCES TRADES & SITE COORDINATION** - *Walls, finish, & services integrated into a single construction activity.*



**NO PLASTERING**



**HIGH SPEED CONSTRUCTION**

# WALLING

## EXTERIOR THERMAL WALLS



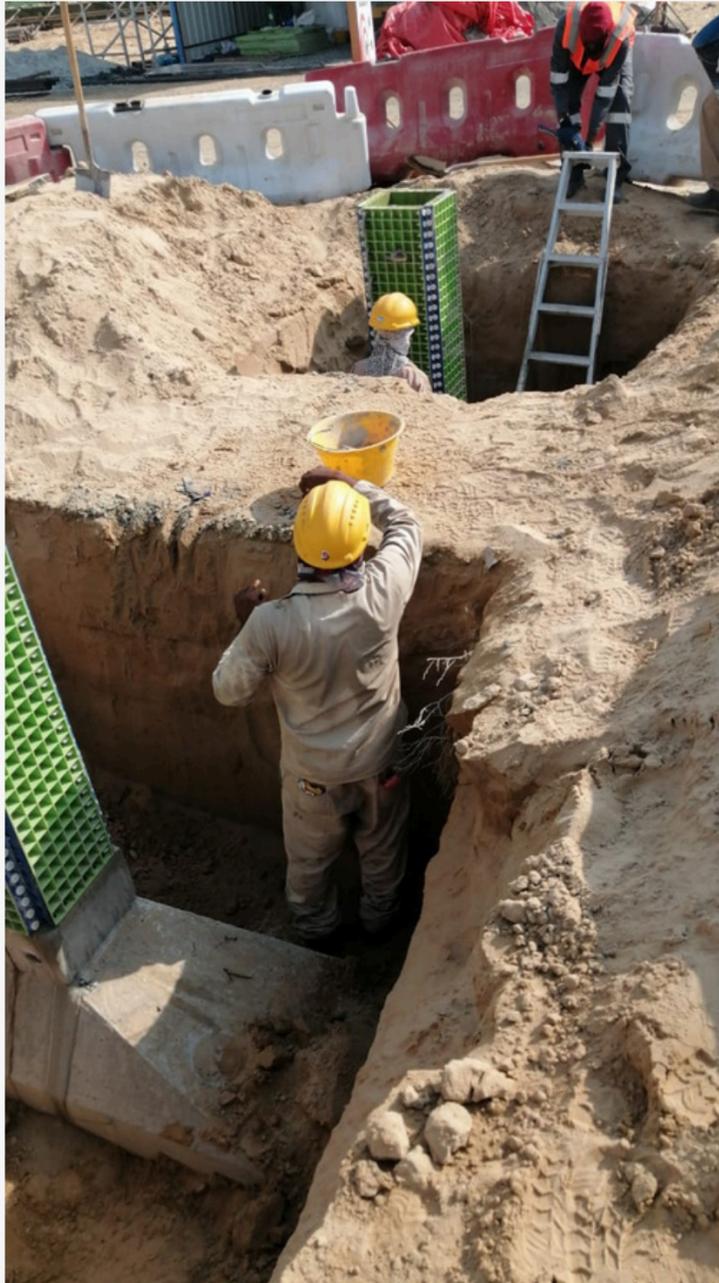
Thermally insulated exterior walls can be constructed using the Hemisphere One integrated construction stack. This is a monolithic reinforced concrete wall system with an integrated insulation core, engineered for high-temperature, high-solar-load environments of the GCC.

- **U-Value: 0.30 – 0.45 W/m<sup>2</sup>·K**
- **(Complies with most UAE, KSA, and GCC energy codes for external walls)**
- **R-Value (Thermal Resistance): 2.2 – 3.3 m<sup>2</sup>·K/W**
- **Wall thickness: 160mm to 200mm**
- **Thermal Bridging:** *Minimal due to continuous insulation core.*
- **Thermal Mass Effect:** *High internal thermal mass reduces peak indoor temperature fluctuations, improving energy efficiency.*

# WALLING



**RAPID BOUNDARY WALL** - Faster delivery, fewer people, fewer stages, and a significantly lower carbon footprint.



## PERFORMANCE SNAPSHOT

### SYSTEM STACK:

HI-561-PRO / H1-561-ECO, 600 SQM Formwork

### TEAM:

14 Members

20 Pours/Month

50 Linear Meter/Pour

500 Linear Meter/Month

12900 SFT/ Month

- Predictable and repeatable output
- Monolithic reinforced concrete structure
- Full RC-grade wall performance
- Parallel construction process
- Adaptable foundations: Pile/Strip/Isolated
- Scalable through stack expansion

# WALLING

## RETAINER WALL -



### MAJOR CHALLENGES

**EXTENSIVE CARPENTRY WORK** - due to non-uniform cutting profiles in RAFT and WALL.

**HIGH WASTAGE IN SHUTTERING PLY** - maximum repetitions allowed is 6 times.

**NAILING & TIMBER SUPPORT** - laborious process.

**HIGH DISPOSAL COST** - loading and transportation cost.

**READY MIX DEPENDENCY** - co-ordination & delays.

**REFORMING & ADJUSTMENTS** - productivity loss.

### ADVANTAGE WITH HEMISPHERE ONE SYSTEM

- **NO CARPENTRY. NO NAILING.**
- **GANG FORMED MODULAR SYSTEM.**
- **OVER 300+ REPETITIONS. RE-USABLE.**
- **EASY FORMING AND REFORMING.**
- **SCC GRADE CONCRETE. EXCELLENT SURFACE FINISH.**
- **PREDITBLE OUTPUT & TIMELINES.**

# PRECAST

## PRECAST BOUNDARY WALL



### HEMISPHERE ONE

### CONVENTIONAL PRECAST

#### FOUNDATION

ADAPTIBLE FOOTING/PILE

FIXED / CONVENTIONAL

#### WEIGHT

1/3<sup>RD</sup> - 60% LESSER

2.4T / 100mm THICK PANEL

#### PROFILE

DESIGN FREEDOM

FIXED MOLD LINER

#### SIZES

UP TO 3M HIGH / 4M LONG

LIMITATION BY MOLD SIZE

#### SET UP

MOBILE / SITE BASED

HUGE FACTORY SETUP

#### COST

OPTIMIZED & COMPETITIVE

HIGHEST IN THE MARKET



# HOUSING



## SHEAR WALL CONSTRUCTION



### CONSTRUCTION PROCESS

- **Foundation flexibility:** Raft or strip foundation using a volumetric filling model
- **Monolithic shear wall** casting using modular plastic formwork
- **Free-flow SCC-grade concrete** for high structural integrity and superior surface finish
- **Embedded MEP** services cast-in during construction (minimal chasing/rework)

### OUTCOME ADVANTAGE

- **Predictable output** with repeatable construction cycles
- **Scalable** by adding more stacks and formwork capacity
- **Fully code-compliant** structural system
- **Resilient**, high-stability construction suitable for mass housing
- **Cost-effective** through reduced labor, faster cycles, and lower rework

# HOUSING

## STEEL-CONCRETE



## HYBRID PRECAST



## AFFORDABLE MASS HOUSING



# JOIN US TO SCALE!



## *Local Anchor Partners*

We are looking for a licensed local trading entity to act as an **Anchor Partner, with warehouse and logistics capability, a front office and sales setup, a marketing team, and a technical team for system deployment, repairs, spares, and on-ground support.** Selected partners will be **licensed to resell and rent the Hemisphere One integrated construction stack** within their market and participate in a dynamic revenue-sharing model across **equipment, rentals, consumables, and services.** Hemisphere One will provide **technology access, training, marketing support, and continuous upgrades,** enabling partners to build a scalable, recurring-revenue business while jointly expanding market adoption.

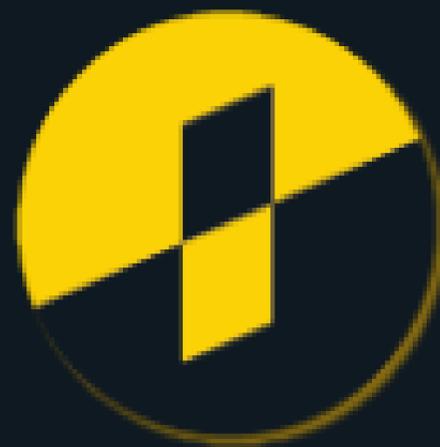
## *Contractors & Project Owners*

### **Why Contractors Partner With Us**

- Simplified technology adoption supported by a local ecosystem
- Faster execution with lower labor dependency
- Higher productivity and improved profit margins
- Integrated marketing support and project visibility
- Solutions aligned with sustainability and ESG goals

### **Target Projects**

- Warehouses and industrial buildings
- Boundary walls and partition walls
- Flooring and precast elements
- Residential and accommodation projects



# HEMISPHERE ONE

## HEMISPHERE ONE CONCRETE TECHNOLOGIES PVT. LTD.

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## HEMISPHERE ONE GLOBAL FZE

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Sharjah. **U.A.E.**