



Your Friendly Technology partner in finding solutions

PRECAST CONCRETE PLANTS

***From A Company with
UNIQUE TECHNOLOGY EXPERTISE***



WHO WE ARE

BUILDMATE is a Strong Technology oriented, High-tech Project engineering and Execution company providing expertise and supply of Plant machinery for various Building Material projects. We are among the top manufacturers in the world for AAC Plants and have considerable experience in creating other Building material plants and machinery for the construction Industry.

Since 1991 with Quality, Integrity, and Innovative Approach, BUILDMATE has helped its clients to achieve their goals. We build long term relationships out of honesty, and trust – that's the legacy of BUILDMATE. We develop high caliber, focused solutions intended to meet the prerequisites for the local and worldwide markets. By reliably addressing the requirements of our clients, we expect to remain as the dominant player in the industry, while creating long-lasting partnerships through our robust services and using cutting-edge technologies.

*Our design and manufacturing facilities are ISO certified. The high precision equipment installed in manufacturing facility is programmed to deliver timely better-quality manufacturing of the products. **Our products are delivered at Economical prices with Technology Equal or Better than European standards.***

INDIGENOUS PRECAST PLANTS

BUILDMATE provides a very high quality of precast plants machinery range build with indigenous technology. All options are open to ensure that every customer receives the most efficient system to suit its specific needs. Depending on your need and use, we can offer you one of the following or others:

- *Stationary Casting bed units.*
- *Tilting Tables with option of Improvised VTC (Vibro Tilt Car) Line Production.*
- *Multipurpose Hybrid Casting Beds suitable for Insulated Sandwich Concrete Panels Production*
- *High Production Battery Mould systems.*
- *Moulds for Compound/ Boundary Wall Panels : 1) Improvised with 3D Patterns 2) Architectural 3) Battery mould principle*
- *Hollow Core Plant (Table Moulds Production option)*
- *High Production Circulation bed plants.*
- *Concrete distribution systems for all types of plants.*
- *Concrete compacting equipment.*
- *Moulds for columns, Beams, Tee or Double Tee girder and special purpose precast elements.*

ONE Point Turnkey Solution Provider

BUILDMATE is a turnkey contracting company providing a complete range of project services needed to conceptualize, plan, design, engineer and construct the projects to meet the specific requirements of its clients.

Apart from Precast Production machines & Equipment, Buildmate can fully support the customer with In-house built ancillary equipment and process like:

- ***Batching Plants (Specially designed and developed Planetary & star type mixers to produce uniform Dry concrete on shorter possible time)***
- ***Element- Material Handling solutions / Cranes as per plant requirements***
- ***PEB Shed as per layout***
- ***Curing systems to ensure that the components are well cured to achieve maximum strength of precast concrete element at economical cost of production. Curing does not cost much but it is the costliest mistake in the present practice of construction/ precast industry.***

BUILDMATE assure the customers with Economical production of concrete with considerable saving on operational cost and early returns / payback of the capex.

START UP AND SITE BASED PLANTS



*Best to test the markets with minimal investments. Startup/Site based Plant is mostly suited for production of precast elements like slabs, solid walls, multi-layer precast panels with dense or light weight concrete. Economical Plants to produce capacities between 200 m²- 300 m² of concrete walls/slabs avoiding high investment in start. **Close to Indian site requirement & Easy to operate with local people. Minimum Civil work on Factory shed & foundations.** This system is very flexible and is most useful where in precast elements of various sizes and thickness can be produced.*



TILTING TABLES



COLUMN MOULDS



STAIRCASE MOULDS

STATIONARY VTC (VIBRO TILT CAR) PRODUCTION LINE



This ECONOMICAL production system is well suited for producing precast elements of various thickness like solid walls, multilayer precast elements and slabs. This system is designed very flexible and easily movable field factory with Simple & quick assembly & disassembly.

Minimum Civil work on Factory shed/foundations and Using Single movable Tilting frame & common Compacting system for all casting beds to avoid individual requirement of Hydraulics cylinders, external vibrators etc. on each bed.

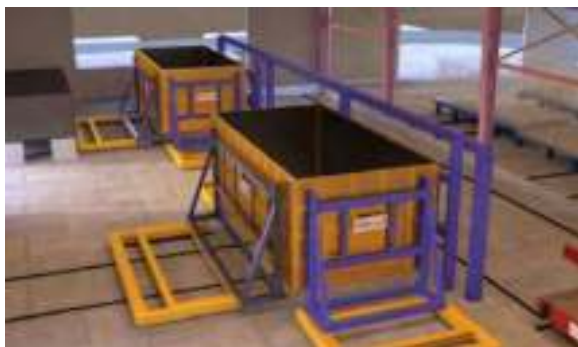
Option to use Processing Machine like Plotter, Concrete Spreader, Leveler, Automated Power Trowel. Customized level of Mechanisation/Automation as per initial capital investment. All equipment designed to be useful while upgrading to a Pallet Circulation Plant (PCP)

MEDIUM AND LARGE-SCALE PLANTS

These plants are designed and supplied with Higher Mechanised controlled production process that enable them to produce more volume of precast concrete elements like slabs, solid walls, multilayered slabs, double walls, 3D PODS etc. with high degree of safety and efficiency. This system enables:

- **High Mechanisation and Automation at different levels of production process.**
- **Planning and control production process for higher operational efficiency.**
- **Higher quality controls.**

3D MODULAR POD MOULDS – (With Bottom Slab Casting)



Buildmate has designed and developed Highly Mechanised form work for modular precast Elements to achieve a high production target of concrete pods in a day. Modular Pod are Highly reliable single block units-based pre-cast elements without many joints unlike other type of precast systems. More resistant to damage during transportation erection in following applications:

- *Structural elements for multistoried Buildings which can be bedroom/hall etc.*
- *Toilet blocks.*
- *Sewage and septic tanks.*
- *Storage tanks for water harvesting and reservoirs for irrigation etc.*

MULTIPURPOSE HYBRID CASTING BED



- It is flexible to use as TILTING TABLE & BATTERY MOLD both.
- Suitable for Production of Energy Efficient Insulated Light weight Sandwich Concrete Wall Panels at site or Factory.
- Easy Horizontal preparation and measuring for accurate quality checks.
- Option of both side Smooth (No Plaster) surfaces Element.

HOLLOW CORE PRODUCTION CASTING BEDS Plant



Avoid heavy investment on Extruder/ Slip former Plant setup. Start economically and flexibly with Low Initial capital Investment. Each Hollow-core slab element is produced on individual Mould/Casting Table to the accurate shape & geometry. Maximum Element Width Up to 3 m and Length up to 12 m possible. The system provides the Flexibility to Increase

Hollow core production Capacity as per requirement in phases with lower initial project costs.

- Reduces the number of Joints due to wider option along with laying time and the crane lifts.
- Use of Reinforcement meshes and connecting reinforcements loops possible.
- Better safe Handling of Hollow core elements at site with lifting rings.
- Suitable for construction systems in various seismic zone areas
- Shortened construction times with the larger slab areas.

CAROUSEL / PALLET CIRCULATION PRECAST PLANT



- A circulation bed system allows the casting beds to move from one station to the next enabling simultaneous production activities creating higher production capacity.
- This helps the plant workers/ technicians to perfect their activity.
- The plant is designed to produce high density, no plaster precast elements with high volumes and minimal dependence on manual labour

Circulation bed systems can be supplied for a Precast production of concrete slab, walls and other structural elements in the range of from 800 to 2000 sq.m area per day.

Machinery Components of Carousel Precast Plant

CLEANING & OILING MACHINE

A perfect cleaning of Casting beds surfaces is the basis for good product quality. The wipers/scrapers clean off major dirt from the contact faces without scratching the ground pallets. The brushes remove the fine dust from the beds. The machines can be produced to a high standard in a drive able or stationary version.



MULTI PURPOSE PLOTTING MACHINE

BUILDMATE offers NEW Multi-purpose plotting machine, which not only quickly and accurately draw the outlines for the concrete elements and built-in parts but additionally can produce special 3D concrete Form work with total precision onto the casting bed surface. Moreover, combined machines with the additional functions of oiling, retarder spraying are available as modular components. Mechanized process avoids human error.



CONCRETE DISTRIBUTOR

The Buildmate concrete distributors are designed to spread the fresh light or normal concrete evenly in the required quantities on the shuttered Casting beds in controlled manner. The working and correct traveling speeds of Machine are adjustable to ensure higher quality and efficiency.



COMPACTING STATION

Various compacting stations which move either horizontally or vertically has been developed by BUILDMATE, along with a combined design, providing compaction movement in both directions too. It ensures that the Freshly poured concrete must be compacted properly to confirm the high quality of the final concrete product with exact shaped edges and boundaries effectively reducing the air voids.



MULTIPURPOSE CASTING BED STACKER / TURNER

Freshly concreted & compacted elements must be cured/hardened before they can be transported to the warehouse or to the construction site. The usual method of hardening is placing the casting beds in a rack for the optimum use of Hall space., which can be operated by a stacker equipped with the necessary control system which manages the casting beds to be automatically stored in and removed from a rack.



VACUUM DE WATERING

The de watered concrete surface is firm enough to be walked on and for achieving smoother surface finish, power troweling is done, usually 60 to 90 minutes later to remove any high spots or irregularities introduced during the vacuum processing. Vacuum De Watering reduces the time for finishing the concrete element and stripping of the forms. Increases the strength of the concrete. Better Smooth and clean finish surface. Decrease the total shrinkage.



TROWEL FLOATER

The concrete element has to be rubbed off & smoothed to achieve a fine, smooth concrete surface, which can be directly painted without further processing, This is done with Trowel Floater after a rest phase of approx.. 60-90 minutes after vacuum de watering has happened. Trowel Machine consist of multiple smoothing head with adjustable pressure. Blade adjustment can also be controlled remotely.



TILTING / STRIPPING STATION:

Finished wall elements needs to be transported and stored in a vertical position. The tilting equipment enables early & safe demolding and transportation of the cured wall elements. The production bed gets locked with tilting frame & is lifted over the arms of the tilting equipment in a secured manner. Optionally the tilting equipment can be supplied in a design steered from the rear, so that it allows the other production bed to be moved lengthwise when the tilting equipment is in raised position.



HIGH PERFORMANCE VERTICAL BATTERY MOULD PRODUCTION SYSTEM:



A vertical battery mould system enables to cast solid concrete panels of required measurements with a plaster finish on both sides which makes it useful to produce concrete wall elements. The BUILD MATE Battery Mould plant is specially designed to have the highest production with leased space requirement, when compared to any

other system. The system can be fitted with heating system for quick removal of concrete wall elements to take up the next casting and also with the required high frequency vibrators that operate synchronously on both surfaces of each slot. Each unit consists of the following equipment -

- A stationary center block with movable concrete castable forms having both side smooth steel surfaces
- Electromechanically movable concrete castable intermediate forms with smooth steel surface on both sides on a sliding mechanism.

MOULDS / PLANTS FOR INFRASTRUCTURE SEGMENT - BUILD MATE is the manufacturers of all type of customized Moulds to produce quality Precast concrete products like:

- **U-Shape drains, Box culvert, U-Shape cable trench**
- **Retaining walls, Underground power duct**
- **Boundary Wall (both surfaces mould finish),**
- **Utility trench and many other precast concrete products as per design requirements.**



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