

COMPACT CONCRETE BATCHING PLANT (CCBP – 60 TS)

PRODUCES 60 M³/HOUR OF QUALITY MIX CONCRETE

FOAR is a manufacturer of advanced technology concrete batching plants with a wide range of applications. This medium size compact concrete batching plant is suitable for multi-story apartment buildings, concrete supplies, road, dams, bridges, industrial projects, and pre-cast factories.

Rapid and simple installation on the construction site enables a team to erect the plant and make it ready for operation in just three days. The main frame, mixer, and linear aggregate hoppers can be separated easily. FOAR CCBP-60 batching plant minimizes installation space and can be placed in congested construction sites. Uninstalling the plant is a quick process as well.

FOAR batching plants are simple to operate as they are equipped with a state of the art automatic control which guarantees high performance and the production of quality concrete due to the precision of a load cell based weighing system adopted for aggregate, cement, admixture, and water.

Aggregate Supply System

The aggregate supplying system is compact and reliable. The sand is fed by one hopper while the aggregates of various sizes are fed through three storage hoppers of 15 m^3 capacity each. All hoppers are equipped with two pneumatically controlled gates discharging the material onto the weighing trough conveyer fixed below.



A FOUR STORAGE HOPPER AGGREGATE SUPPLY SYSTEM WITH 15 M³ HOPPERS

Weighing System

This weighing conveyer is equipped with four load cells for weighing of aggregates. The conveyer trough intakes aggregates of various sizes as per the desired formulation and conveys the material to the elevator skip. The cement weighing hopper and batch water is weighed through separate three point load cell systems provided in the tower frame located above the mixer. Liquid admixture will be added to mix by a dosing pump.

Elevator Skip

The skip elevates the aggregate batch and charges into the mixer returning back to the weighing conveyer for reloading for the next batch completing the cycle in less than one minute.



INSIDE VIEW OF A TWIN SHAFT MIXER

Twin Shaft Mixer (TSM 1000)

The compact twin shaft design mixer has the advantage that it takes up less space. It can produce fresh concrete with consistency ranging from zero to twelve inch slump which can have various applications including ready mix, road construction, bridges, etc.

Its special double helix mixing paddle speeds up mixing time by more than 50% when compared to a conventional mixer. This mixer guarantees excellent mixing density and homogeneity of concrete. The mixer's lining is made of cast steel wear resistant material. The mixing chamber has a discharge capacity of 1,000 liters per batch. The mixer is powered by a 30 kW motor with gear reducer.

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FOAR CCBP – 60 TS (continued)

Operation Center and Control Cabinet

The operation center has overall visibility of the entire plant operation. The operator can see the weigher data display, water flow data, admixture dosage and the operation of the mixer, aggregates, skip, and concrete discharging all at a glance. The control cabinet has a power supply and all safety components like circuit breakers, contactors, fuses, relays, timers, programmable logic controller (PLC) for the weighing systems and other devices underneath the control desk.

Technical Specifications

Plant Capacity	60 m ³ /hr of concrete	Elevator Skip	
Material Hoppers & Feed Gates		-Volume	1 m ³
-Aggregate Hopper	3 Nos x 15 m ³ x 2 gates each	-Travel Speed	24 running meters/minute
-Sand Hopper	1 Nos x 15 m ³ x 2 gates each	-Geared Drive	11 kW
-Cement Weigh Hopper	1 Nos x 500 kg x 2 inputs	-Wire rope Φ	12 mm
-Water Weigh Tank	1 Nos x 300 liters	Mixer - Twin Shaft Mixer TSM 1000	
-Additive Tank	1 Nos x 20 liters	-Dry Volume	1600 liters
Weighing Conveyer		-Working Capacity	1000 liters
-800 mm wide trough type 3 ply belt		-Twin Shaft Drive	30 kW
-Conveyer Drive	7.5 kW	Cement Storage	1 silo x 100 tons
Weighing System - Electronic Load Cell Based		Screw Conveyer	10 in. Φ x 12 m length
-Weighing Conveyers	4 cells x 3000 kg each	Screw Conveyer Drive	15 kW
-Cement Hopper	3 cells x 300 kg each	Water Pump	5.5 kW drive, centrifugal type,
-Water Weigh Tank	3 cells x 300 kg each	water Fump	550 liters/minute
-Additive Weigh Tank	1 cell x 100 kg each	Admixture Dosing Pump	0.5 kW drive
Full Automatic Printing Recorder (Optional)			
-Reports with following data and features	-Date & Time -Batch No.	-Mixing Formula -Mixing Weight	-Total Volume -Total Weight

Note: Technical specifications are subject to improvement without prior notice

- ① Linear Aggregate Supply Hopper
- ② Weighing Conveyer
- ③ Aggregate Skip
- ④ Twin Shaft Mixer
- 5 Cement Weigh Hopper
- 6 Water Weigh Tank
- ⑦ Control Cabin
- ⑧ Cement Storage Silo
- 9 Cement Screw Conveyer



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