

ASPHALT BATCH MIX PLANT TECHNICAL FEATURES

SPECIFICATIONS	UNIT	MODEL CABP-100	MODEL CABP-120	MODEL CABP-160
OUTPUT CAPACITY @ 3% MOISTURE	TPH	100	120	160
BATCH SIZE	KG	1300	1500	2000
CYCLE TIME	SEC	45	45	45
NO. OF COLD FEED BINS	NO	4	4	4
STORAGE CAPACITY OF EACH BINS	TONS	15	15	20
COLD FEEDER	TPH	250	250	250
COLD FEED CHARGING CONVEYOR	TPH	160	160	200
DRYER DRUM SIZE (D X L)	MM	1600 x 7500	1900 X 8500	1900 x 8500
DRYING CAP. (cap. based on MC of 3%)	TPH	120	160	200
DRYER DRUM DRIVE		4 WHEEL FRICTION DRIVE		
BURNER TYPE		HIGH PRESSURE, FULLY AUTOMATIC, MODULATING		
HOT ELEVATOR	TPH	140	180	220
VIBRATING SCREEN	-	4 DECKS	4 DECKS	4 DECKS
HOT AGGREGATE BINS	NO	4	5	5
AGGREGATE WEIGHING HOPPER CAPACITY	KG	1600	1600	2000
ASPHALT WEIGHING HOPPER CAPACITY	KG	225	225	300
FILLER WEIGHING HOPPER CAPACITY	KG	300	300	400
PUG MILL MIXING CAPACITY	KG	1300	1600	2000
FILLER FEEDING SCREW CONV. CAPACITY	TPH	15	20	25
BAG HOUSE FILTER AREA	M ²	280	400	450
ASPHALT TANKS (INDIRECT HEATING)	TONS	1 X 30	2 X 30	2 X 30
THERMIC OIL HEATER CAPACITY	KCAL / HR	300000	500000	500000
EXHAUST MOTOR	HP	75	120	120
INLINE HOT MIX STORAGE SILO CAPACITY	TONS	OPTIONAL	20	20
RECLAIMED ASPHALT PRODUCT (RAP) SYSTEM	-	OPTIONAL	OPTIONAL	OPTIONAL

* As per company's policy of constant product upgradation, above specifications are subject to change without prior notice.

* Other capacity models can be offered against specific enquiry

ASPHALT BATCH MIX PLANT





SCOPE OF SUPPLY

▪ Cold Aggregate feeder Bins	▪ Bucket Elevator for Hot Aggregate	▪ Weighing & Mixing System	▪ Mineral Filler Unit with Screw Conveyor
▪ Over size Material & Dust Removal Screen	▪ Batching & Mixer Tower	▪ Insulated Inline Mix Material Storage Silo	▪ Bag House Filter with Exhaust System
▪ Cold Aggregate Charging Conveyor	▪ Multi Deck Hot Aggregate Vibratory Screen	▪ Insulated Asphalt Tanks	▪ Fuel Tank with heating arrangement
▪ Dryer Drum with Modulating Burner	▪ Hot Aggregate Bins	▪ Thermic Oil Heater	▪ Control Panel with Control Cabin

RAP system and other options can be incorporated against customer's specific requirement.



STRUCTURE OF BATCHING TOWER

Batching & Mixing Tower structure is constructed using ISMB 450 beam to make it sturdy, its modular design makes it easy to install, uninstall and transport from one site to another.

INLINE STORAGE SILO

Fully insulated Inline hot mix material storage silo of 20 tons capacity for fast truck loading. Pneumatically operated radial gate for material discharge. Batch loading prevents mix material segregation.



SKID MOUNTED MIXING TOWER

The Batching & Mixing Tower unit is Skid Mounted with wide base for stability. Eliminates costly RCC and Foundation civil work. The Plant can be easily set up on PCC





COLD AGGREGATE FEED HOPPER (FOURBINS)

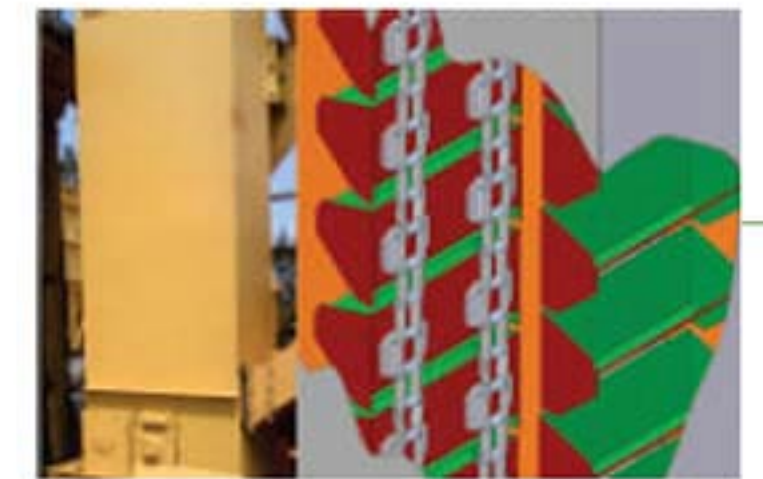
Four Bin Feeder for cold aggregate storage, proportioning and feeding to dryer drum. Each bin feeder belt, driven by AC Variable Frequency Drive (VFD) geared motors, deposits the aggregate on a gathering conveyor located under all of the four bins. One bin meant for fines or dust is fitted with vibratory motor to ensure the free flow of material. Width of each bin is compatible with the width of the loader bucket.

Cold aggregates are prescreened by multi-deck vibratory screen for oversize material and undesired free dust removal before being conveyed to dryer drum through charging conveyor.



HOT BUCKET ELEVATOR

Capius hot aggregate bucket elevator is a totally enclosed chain driven system, designed for long service life and easy maintenance access. Robust and reliable bucked elevator is designed to withstand high material temperatures and to operate at rated capacity. Double strand chain ensures smooth & balanced operation of entire elevator system, eliminating unbalancing of buckets during heavy loads when plant is operated at full capacity.



DRYER DRUM



The dryer operates on counter-flow technology. The aggregate is introduced into the dryer at the upper end and the burner is located at the lower end of the dryer. The exhaust gases from the combustion move toward the upper end of the dryer, against (counter to) the flow of the aggregate. As the aggregate is tumbled through the exhaust gases, the material is heated and dried. Dryer drum rotation is with four-wheel friction drive. Dryer is insulated to prevent heat loss and protect the drum shell. Replaceable internal lifting flights are designed to ensure optimum heat transfer for drying & heating of aggregates.

MODULATING BURNER FOR DRYER DRUM

Modulating type oil burner with simple operating mechanism maintains perfect air / fuel ratio resulting in efficient combustion of fuel there by saving fuel and environment. It is suitable for F.O., Diesel and LDO. The burner produces the proprietary ball-shaped flame, inevitably required for total combustion, fuel efficiency, longer drum shell life, maximum radiation heat transfer and conformance to high emission standards. This burner unit is devoid of any refractory material and is supplied with modern safety interlocks and process automation.



FOUR DECK VIBRATORY SCREEN

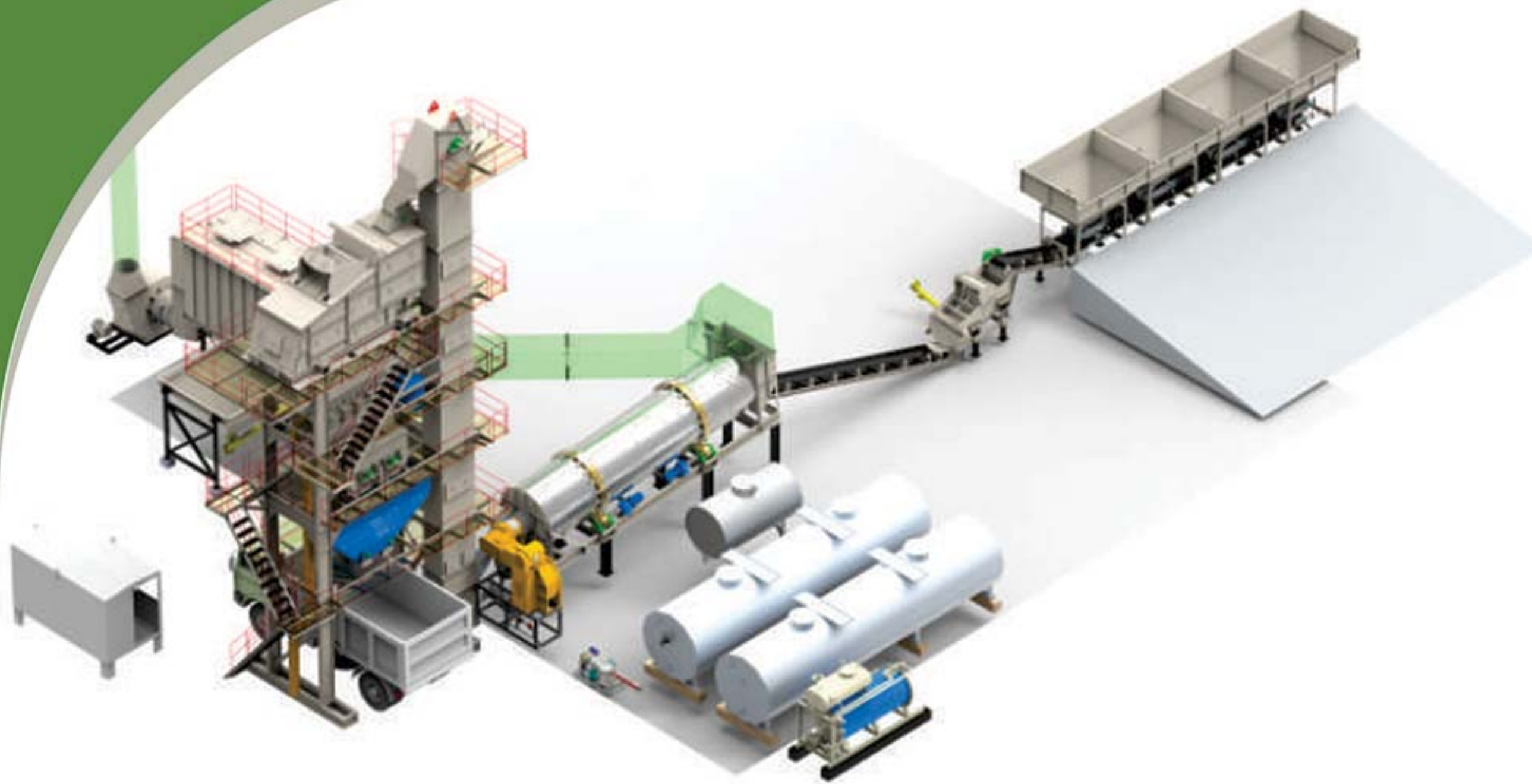


Multi deck, totally enclosed, inclined vibratory screen for gradation of hot aggregates. Two nos. vibratory motors provide required vibration for optimum screening. High quality screen cloth contributes to excellent performance. Sufficient screen area to handle the rated feed capacity. The free-floating design prevents any vibration from being transferred to the weighing scales. A wider platform with easy access eases the maintenance of the screen. Screens can be easily replaced to match the hot mix recipe.

PUGMILL MIXER

Capius Pugmill Mixer ensures production of uniform and homogeneous hot mix material. The pugmill consists of lined mixing chamber with two horizontal counter rotating shafts with paddle arms. Easily replaceable and adjustable paddle tips are mounted on paddle arms leaving no 'dead areas'. The pugmill mixer is hot oil jacketed for maintaining the temperature. The radial gate allows smooth discharge of mixture from the full width of the mixer.





BITUMEN WEIGHING HOPPER

The bitumen is metered by weight through load cells in the weigh hopper. Bitumen is feed by gravity hence no need of spray Pump and motor. 2" glass wool insulation on bitumen hopper and provision of hot oil circulation maintains the bitumen temperature. Teflon coated pneumatic butterfly actuator for quick discharge. There is a Spray bar for uniform spraying of liquid Bitumen in Pug mill chamber.

THERMIC HOT OIL HEATING SYSTEM

The indirect heating tanks are supplied with a superior design thermic oil heater. Thermic oil heater of capacity 500000 Kcal/hr. has integrated combustion chamber, concentric helical machine wound coil is placed within double shell to allow three passes of flue gases. Heater body is insulated by 4" thick glass wool. The Thermic oil heater is supplied with independent automatic control panel including oil temperature indicator controller, low level switch, low circulation pressure switch, over temperature cut off thermostat burner control relays and burner operating circuits.



REVERSE AIR FLOW BAG-HOUSE FILTER UNIT

The baghouse system consists of a primary dust collector, an enclosed fabric filter structure (baghouse), and a draft package which includes the exhaust fan. Bag House Dust Collector is designed to capture the dust from exhaust gases and thus filter the air from particulate laden (dirty air) turning the dirty air into clean air; virtually particle free. Once the air is cleaned, it's exhausted from the collector's clean air side back into the atmosphere. Dust particles are captured on the filter bags surface, while the gases being filtered pass through the filter bags media. Screw conveyor is provided to feed the collected dust in bucket elevator.



CONTROL PANEL AND CABIN

Fully automatic, SCADA enabled PLC based control panel with HMI for centralized operation of plant. AC drives and all electrical components are of reputed brands. It is equipped with protections like single phasing, overload, fuses, sequence interlock etc. Load wise data can be printed on the printer provided in the panel. The body of the panel is fabricated from CRC sheet duly Powder Coated to protect against weather effect and has necessary ventilation.

The Control Panel is housed inside an air-conditioned insulated cabin. The cabin glass windows provide operator optimum plant view from the cabin for ease of operation and control.



ASPHALT TANKS

Fully insulated round shape asphalt tanks are of indirect heating type with hot oil circulating coils for heating asphalt at desired temperature. Asphalt pump supplies the hot asphalt to weighing bucket on batching tower through hot oil jacketed asphalt pipeline. The tanks are fitted with automatic thermostatic controls and level indicators.