



THE EXPERTS IN
ASPHALT & CONCRETE BATCH MIX PLANTS

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www.ardentgroup.co.in



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BATCH MIX PLANTS**

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PROBATCH SERIES





OUR GROUP COMPANIES



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Ardent Maschinfabrik Pvt. Ltd. is the perfect mix of tradition & technology. Strategically located in Pune, India; Ardent group specialises in the development, manufacturing & marketing of Asphalt & Concrete Batch Mixing Plants used in paving highways & airports, road widening & development projects.

WE DELIVER IN BLACK WHAT WE PROMISE ON WHITE



ARDENT ASPHALT BATCH MIXING PLANTS

Ardent Asphalt Batch Mixing Plants have a compact design which fits into containers for ease of shipment. The reduced footprint of the plant layout and the screen drum concept utilizes dual-functions of drying and screening of aggregates, ensuring very short route of aggregate flow to the hot bins. These plants deliver high capacity hotmix asphalt for highway projects, large airport runways, road resurfacing; the distinguished features incorporated in these plants is that it has no hot elevator, no vibrating screen and a dual purpose screen drum. These Plants facilitates low cost production of Hotmix Asphalt due to lower fuel consumption without compromising on the quality resulting in competitive investment with lower cost of operation with high performance.



EASY TRANSPORTATION

Plants are customised to fit into containers for the purpose of ease of shipment.



ECONOMICAL OPERATIONS

Lower fuel consumption & lower maintenance cost results in lower operating and production cost.



ADDITIONAL ATTACHMENTS

Due to the modular design it is easy to order various attachments basis the requirements & install it at the plant location with ease.



LOWER MAINTANENCE COST

No need to change worn-off buckets, bearings, chains, sprockets as hot elevator is not required. No separate screening section required.



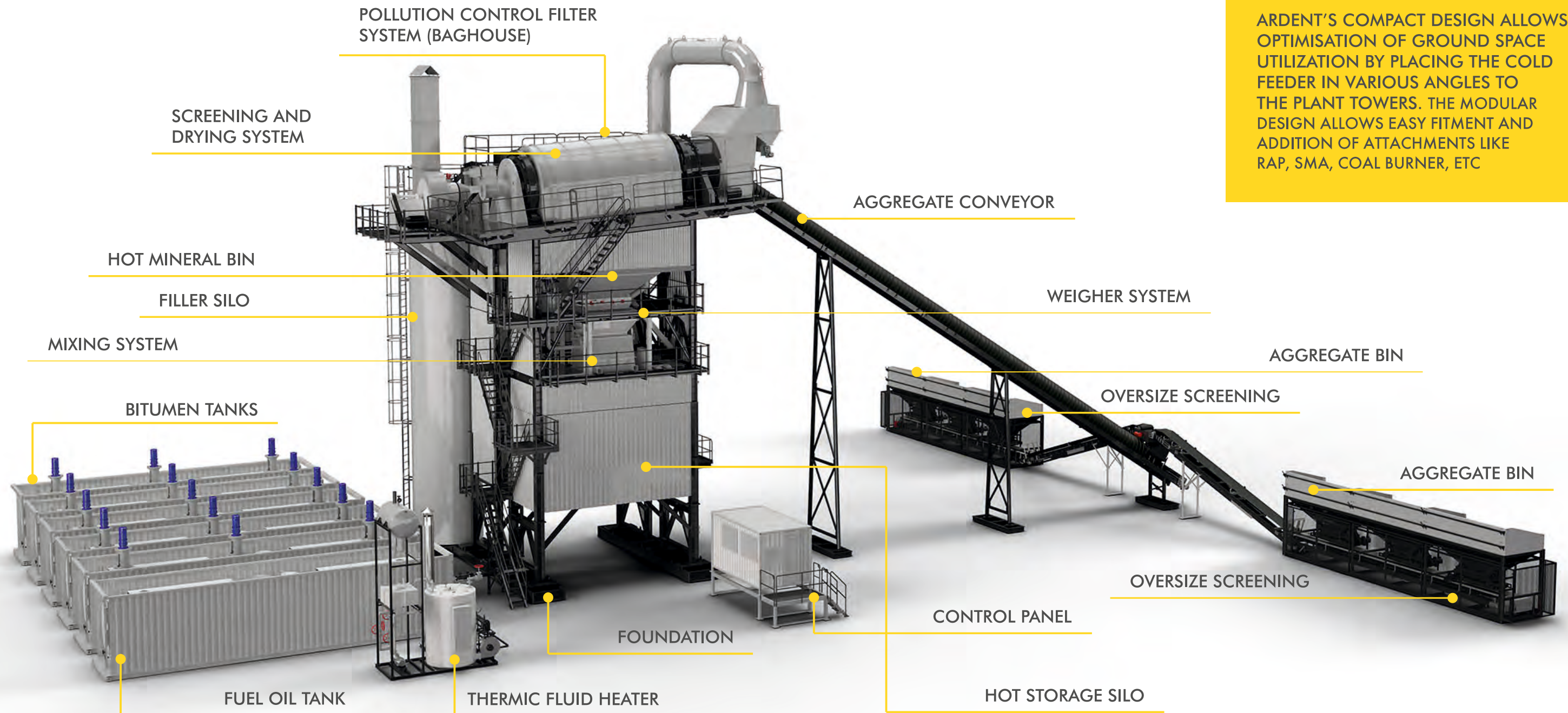
QUICK INSTALLATION

The preassembled stackable unit design of the plant with plug & play feature makes it fast & easy to assemble & Commission.



PROBATCH PLANT VARIANTS

ProBatch 100 (100 Tons per Hour)
ProBatch 140 (140 Tons per Hour)
ProBatch 180 (180 Tons per Hour)
ProBatch 240 (240 Tons per Hour)



ARDENT'S COMPACT DESIGN ALLOWS OPTIMISATION OF GROUND SPACE UTILIZATION BY PLACING THE COLD FEEDER IN VARIOUS ANGLES TO THE PLANT TOWERS. THE MODULAR DESIGN ALLOWS EASY FITMENT AND ADDITION OF ATTACHMENTS LIKE RAP, SMA, COAL BURNER, ETC

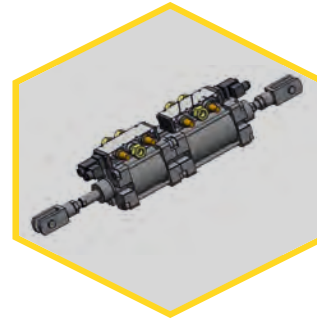
FEATURES

Features that make Ardent Batch Mixing Plants to be the preferred choice of the Customers for development of Roads & Highways

COMPACT AND EFFICIENT DESIGN

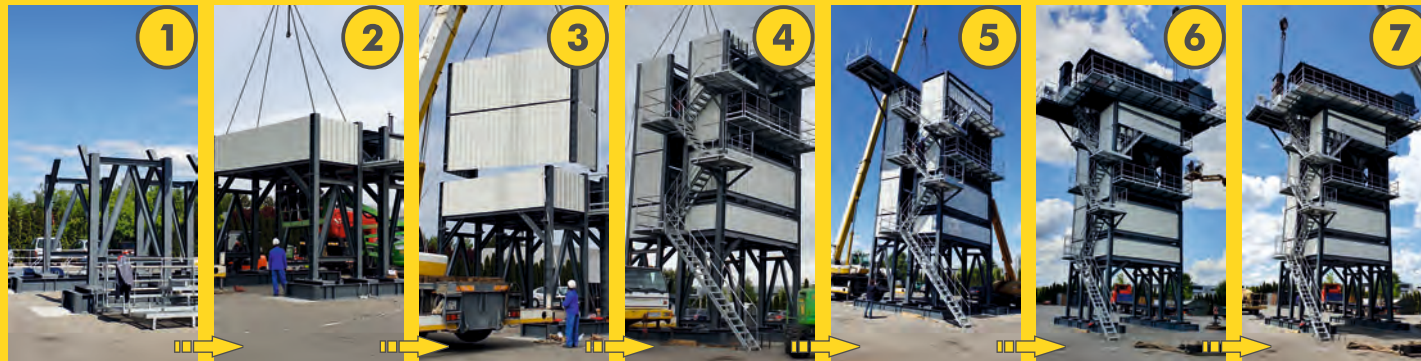


Large capacity hot bin storage to ensure quick batching



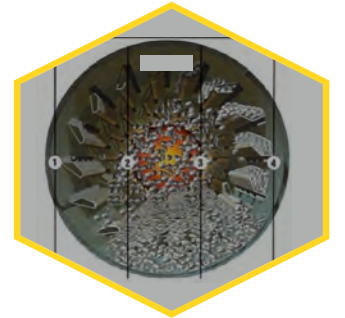
Two stage pneumatic cylinders ensure reduction in batch cycle time as there is no jogging of the cylinders.

DESIGNED FOR QUICK & EASY INSTALLATION AND COMMISSIONING



All cages are specially built in aluminium to ensure no rusting & ensure a good bag life

Specially designed drum / dryer flights to ensure higher retention time and low fuel consumption



Specially incorporated safety features like emergency pull chords & emergency switches



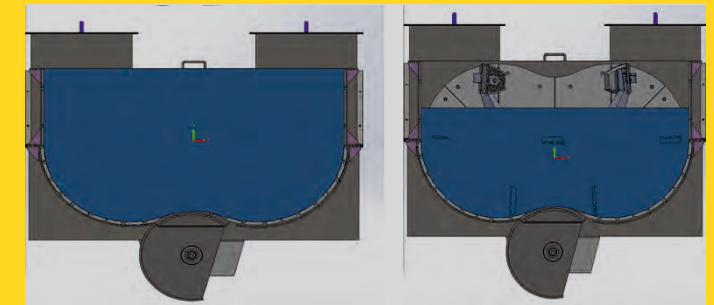
Plug & socket system connected to the junction boxes for easy & fast installation



The plants are designed to be easily accessible, central access provided between the two towers



Mesh on cold bins to ensure oversize removal

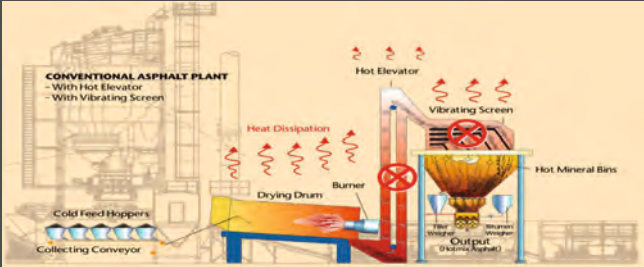


THE GAME CHANGER

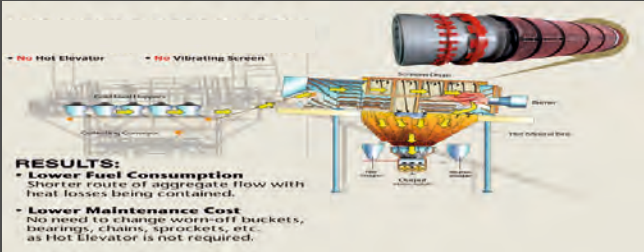
LARGE MIXER CAPACITY FOR EFFICIENT BATCHING

100% BATCH SIZE AT 70% FULL

LOW OPERATION COST



No hot elevator required resulting in less heat loss & more output and low maintenance cost as no need to change worn off buckets, bearings, chains due to transport of hot aggregates as there is no requirement of the hot elevator



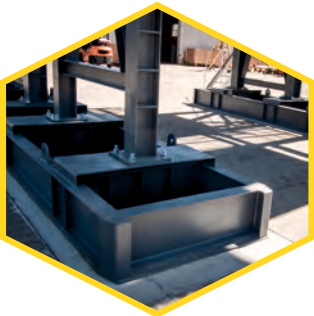
Drying & screening happens in single operation hence no separate screening deck required



Drum burner is stepless modulating for mix uniformity

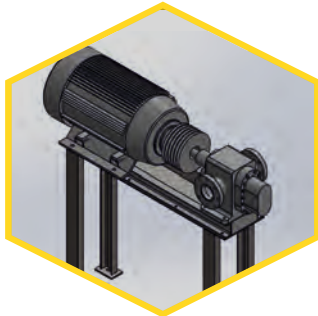
STABILITY AND ACCURACY

Robust steel foundations keeps the plant steady also avoids the need for PCC foundations



Buffer silo for filler / SMA in plant for faster batching

Galvanised handrails for long life of the plant



Inbuilt bitumen injection pump for faster batching

In flight control for weighing system to ensure high accuracy

WEATHER PROTECTION

Weather protection enclosure (cladding) to protect against rain, heat and strong winds



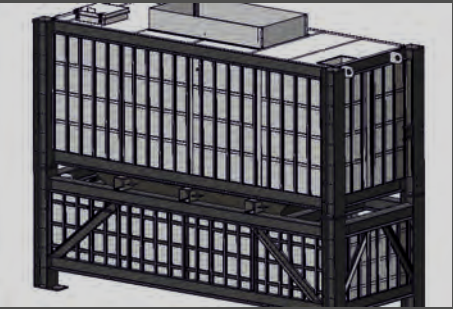
Rain covers on belt conveyors for protection against additional moisture

The drum comes with an extended roof for burner protection



STORAGE FACILITY

Linear expandable hot storage silo allows availability of hot asphalt for the customer at all times

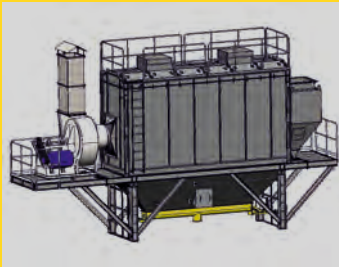
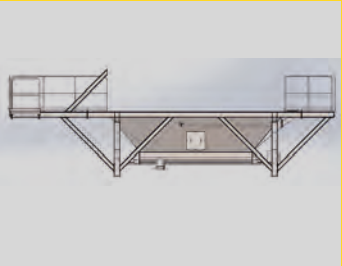


EFFICIENT POLLUTION CONTROL SYSTEM



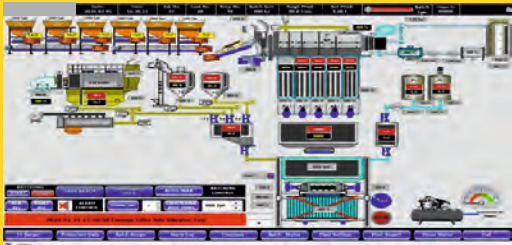
Dust conditioner for easy disposal of dust resulting in better pollution control

Specially designed recuperated Silo below baghouse to collect fine & feed back to the mix



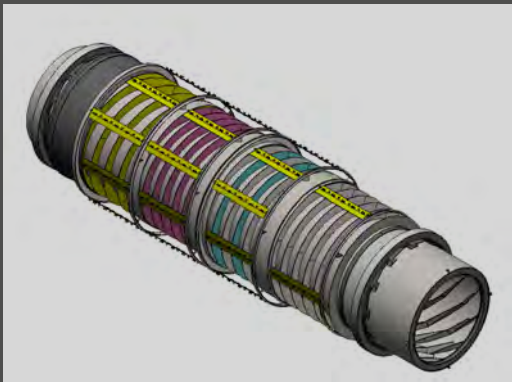
High capacity reverse air bag house with large surface area to collect dust efficiently

PROPRIETARY SOFTWARE



ProBatch® Scada based software for best user friendly operation & experience

MAXIMUM OUTPUT



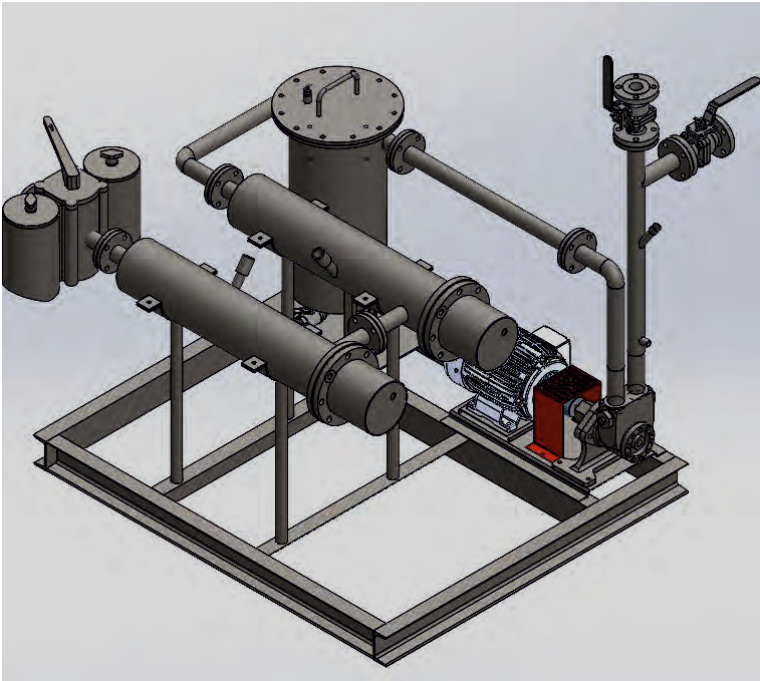
Double screening provides more screening area for optimum efficiency & maximum output

EFFICIENT CONTROL SYSTEMS



The exhaust fan is VFD controlled instead of damper

HEATING & PUMPING SYSTEM



Specially augmented fuel system complete with preheating & heating; pumping station to ensure optimised flow & temperature while using ISHS/FO

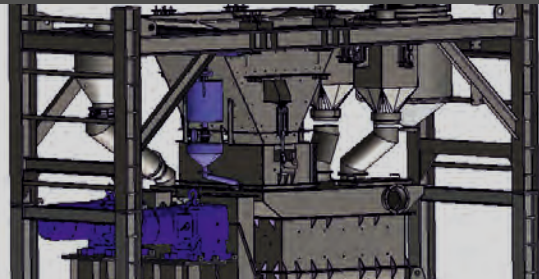
TECHNICAL SPECIFICATIONS OF ARDENT PROBATCH PLANTS

PLANT MODEL	ProBatch 100	ProBatch 140	ProBatch 180	ProBatch 240
Rated Output at 3% Moisture	100 TPH	140 TPH	180 TPH	240 TPH
Cold Feed Hoppers Capacity	4 X 9 M3 (one Bin With Partition)	6 X 9 M3	6 X 9 M3	6 X 12 M3
Mesh on Bins	YES			
Collecting Belt Including Grizzly to Remove Oversize Capacity	100 TONS/HR	140 TONS/HR	180 TONS/HR	240 TONS/HR
Screen Drum/Dryer Screening Area	21 M²	40 M²	48 M²	82 M²
Screening Method	DOUBLE SCREENING			
Burner C/W Blower for Diesel & Heavy Fuel, Optional Gas, Output <small>*Always subject to chosen burner and fuel type</small>	8 MW	12 MW	14 MW	18 MW
Hot Mineral Bins - Total Capacity	8 TONS	20 TONS	32 TONS	45 TONS
No. of Compartments in Hot Bin	5 BINS			
Aggregate Weigher Capacity	1,250 KGS	2,000 KGS	2,500 KGS	3,500 KGS
Filler Weigher Capacity	100 KGS	150 KGS	300 KGS	400 KGS
Bitumen Weigher Capacity	150 KGS	150 KGS	200 KGS	300 KGS
Twin-Shaft Mixer (@70% Full)	1,250 KGS	2,000 KGS	2,500 KGS	3,500 KGS
Average Batching Cycle Time	45 SECONDS			
Bitumen Supply Pump	250 LITRES/MIN	500 LITRES/MIN	500 LITRES/MIN	700 LITRES/MIN
Baghouse Ambient Air Cleaning System Filter Area	340 M²	445 M²	650 M²	900 M²
Recuperated Filler Silo With Dosing Screw Capacity	15 TONS	20 TONS	30 TONS	32 TONS
Control Cabin Electrical System 3 Phase, 4 Pole, 50 Hz	415 V	415 V	415 V	415 V
Recommended Power Supply (Minimum)	320 KVA	380 KVA	500 KVA	500 KVA
Plant Control & Monitoring System (Cabin Fitted with Aircon & Easy 3 Side View Cabin)	PRE-INSTALLED CONTROL SOFTWARE WITH SCADA BASED SYSTEM ProBatch®			
Foreign Filler Silo with Bucket Elevator & Screw, Capacity with Inclined Screw / Elevator	INCLUDED			
Weather Protection Enclosure	YES			
Steel Foundation for Plant	YES			
Dust Conditioner to Treat Fines	YES			
Bitumen Tank - Capacity	INDIRECT HEATED 1 X 30 KL	INDIRECT HEATED 2 X 45 KL	INDIRECT HEATED 2 X 45 KL	INDIRECT HEATED 3 X 45 KL
Thermal Hot Oil Heater - Capacity Per Hour - Light / Heavy Oil, Option Of Gas / Dual Fuels / Coal Gas	200,000 KCALS	400,000 KCALS	500,000 KCALS	500,000 KCALS
Fuel Oil Tank - Capacity	18 KL	24 KL	24 KL	24 KL
Pipelines for Fuel Oil / Bitumen / Thermal Oil	INCLUDED			
Hot Storage Silo Below Mixer Capacity	15 TON	30 TON	50 TON	80 TON

Materials and Specifications are subject to change without prior notice.

OPTIONAL ACCESSORIES

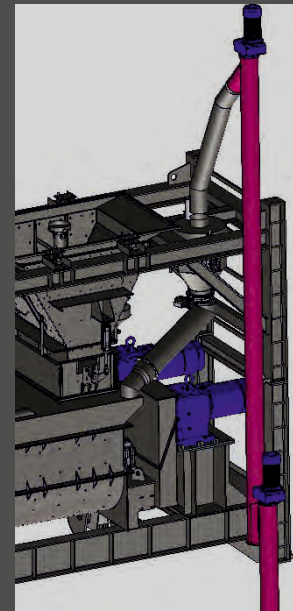
Additional accessories that can be ordered as per the requirement and can easily be installed at the plant location.



Colour Asphalt Liquid Loading System



Rap Sieving System with Conveyors



SMA Dosing System (1.5% Dosing)



Hot Recycling



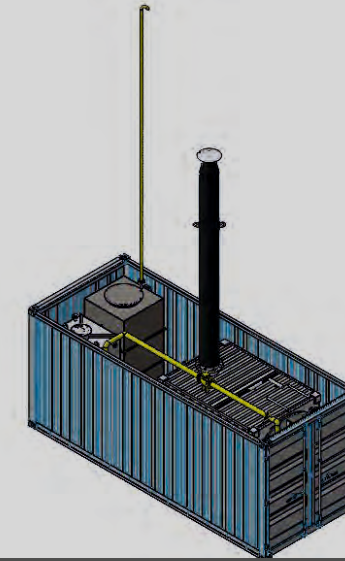
Cold Recycling



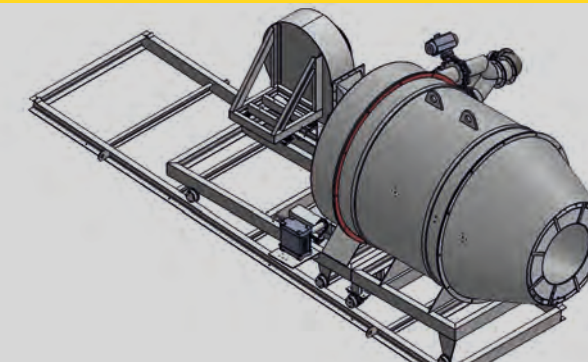
Gussphalt / Mastic Option



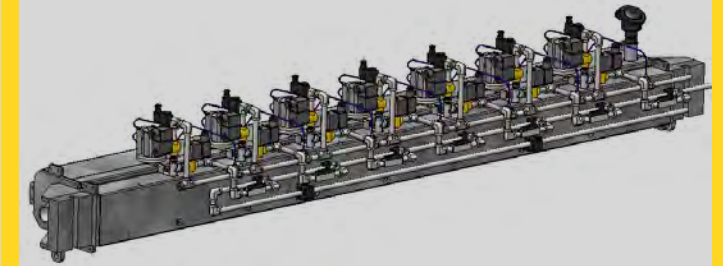
Drum Decanting System



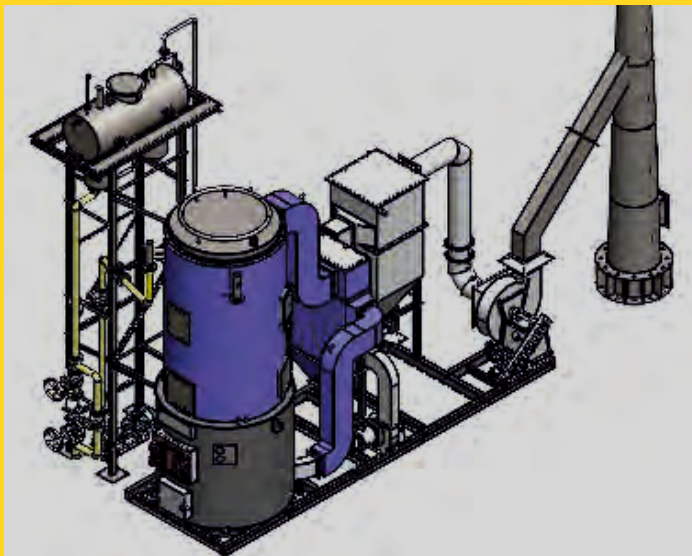
Thermal Oil Heater in Container



DustPro® Coal Burner Complete with Accessories & Storage



Warm Mix (Water Based)



Coal Fired Thermal Oil Heater

OTHER OPTIONAL ACCESSORIES

- RAP Granulator
- Fuel / Gas Metering System
- Hot RAP with Counter Flow Drum
- Waste Heat based Coal Dryer

- Optional Hot Storage Silo Side Skip from 100 to 1600 tons
- Dedust Covers for Cold Feeder with Suction Fans Connected by Duct to Bag House During Loading
- Bitumen Tank Vent Connection to Common Ground Filter for Clean Air Fume Control